SOCIAL AND STRUCTURAL FACTORS AFFECTING THE CULTURE OF MEDICAL MIGRATION IN NIGERIA: INSIGHTS FROM FOUR PUBLIC MEDICAL SCHOOLS

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ABSTRACT

Background: The loss of doctors from low income countries through migration is a major concern. In Nigeria, one of several 'push' factors implicated in the migration of doctors is a 'culture of migration' prevalent in medical schools. This culture has policy implications; retention schemes and policies are less likely to be effective if the targets of such schemes are being prepared for export during their medical school training. Little is known about the drivers of a 'culture of migration' in Nigeria and their influence on the aspirations of medical students to emigrate after graduation.

Aim and Objectives: The aim of the thesis is to define and assess the scope of a 'culture of migration' in Nigerian medical schools. Objectives are: (1) To examine attitudes and intentions to migrate among medical students in Nigerian medical schools (2) To examine medical education in Nigeria and its influence on medical students' aspirations to migrate after graduation, (3) To understand the influence of social networks on medical students' aspirations and intentions to migrate after graduation in Nigeria.

Methods: A two-phased mixed methods design was employed. In the first phase of the study, a structured questionnaire survey was conducted to assess the defining features and extent of a 'culture of migration' in four medical schools in Nigeria. In the second phase, a flexible, embedded multiple case study of two schools was employed to explore in-depth the reasons and the mechanisms through which a 'culture of migration' is propagated.

Results: 211 out of a total of 580 final year students in six medical schools participated in the survey, aged between 20 and 45 years. Almost two-thirds (63.5%) of respondents had positive views on medical migration, while close to half (41.7%) showed a positive aspiration to migrate after graduation. Respondents' 'views on migration', 'gender', and 'family migration history' were found to be the predictors of respondents' aspirations to migrate after graduation. This study found evidence of factors characteristic of the existence of a culture of migration in the medical schools studied: a long history of migration, positive attitudes towards migration, and high aspirations to migrate. However, the strength of this evidence varies across the schools depending on the availability of support structures for migration; one school showed compelling evidence, another showed little, while the other two showed characteristics that were between those two extremes. Students' dissatisfaction with the general situation in Nigeria, and a dysfunctional medical education system, leaves them feeling inadequate, and in need of further training abroad. These aspirations are furthered by students' day-to-day interactions with the medical school faculty, and by the backing they receive from social institutions. Students and young medical graduates prepare for their migration projects by taking advantage of the support provided by their family, social networks, and support of their training institutions.

Discussion/Conclusion: Medical students and medical graduates will continue to migrate from Nigeria because the culture in their training institutions encourages them to do so; the stronger the institutional support for migration the stronger the evidence of a culture of migration. Retention schemes aimed at keeping doctors in Nigeria must therefore include concerted efforts to change the institutional support for migration and the resulting 'culture of migration'. This will require policies that introduce exit requirements for medical school graduates, as well as improvements in funding for both medical education and the healthcare systems and revamping of the national social infrastructure in Nigeria. Better training facilities, better treatment of resident doctors, and greater availability of residency training places might encourage medical students and graduates to consider a professional future in Nigeria.

DECLARATION

I hereby declare that this submission is my own work and that to the best of my knowledge, it contains no material previously published or written by another person or material which to a substantial extent has been accepted for the award of any other degree of this university or other institutions of higher learning, except where due acknowledgement has been made in the bibliography, references and text of the thesis**.**

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DEDICATION

THIS THESIS IS DEDICATED TO SOPHIE OKEUWOMA STELLA JACOB-AWIRE, GLORIA AWIRE, AND THE MEMORIES OF MY MOTHER SOPHIE O. STELLA AWIRE, MY FATHER JACOB OKOPI AWIRE AND MY BROTHER ALEX ONOME AWIRE.

LIST OF ACRONYMS AND ABBREVIATIONS

AMA	American Medical Association
ASUU	Academic Staff Union of Nigerian Universities
ECFMG	Educational Commission for Foreign Medical Graduates
FAIMER	Foundation for Advancement of International Medical Education and Research
IMG	International Medical School Graduates
OECD	Organization for Economic Cooperation and Development
MCCEE	Medical Council of Canada Evaluating Examination
MDCN	Medical and Dental Council of Nigeria
NELM	New Economics of Labour Migration
NUC	National Universities Commission
NYSC	National Youth Service Corps
PLAB	Professional and Linguistic Assessments Board
SSA	Sub-Saharan Africa
UI	University of Ibadan
UN	United Nations
UNIBEN	University of Benin
UNIJOS	University of Jos
UNN	University of Nigeria, Nsukka
USMLE	United States Medical Licensing Examination
WHO	World Health Organization

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CHAPTER 1

1.0 Introduction

1.1 Background of the research study

This study sets out to examine the structural and social factors in Nigerian medical schools that encourage medical students to migrate outside Nigeria after graduation, and practise medicine elsewhere. This two-phased mixed study examines records and documents, and the views and experiences of Nigerian medical students, some of their family members, and members of the medical school faculties, with regard to factors that affect what has been described as a 'culture' of migration in Nigerian medical schools (Hagopian et al. 2005).

The loss of healthcare workers through migration from low income countries has been recognised as a major concern (Eastwood, 2005). This phenomenon creates problems for source countries already struggling to cope with poor healthcare systems that barely meet local healthcare needs (Mills et al. 2011). Guzder (2007) reported that a quarter of all doctors practising in the United States of America are foreign medical school graduates. Well over half (60%) of these are from low income countries, with Sub-Saharan Africa (SSA) contributing a sizeable proportion of this figure. Hagopian et al. (2004) estimated that of the total number of African doctors practising in the USA, who had received their primary medical training in Sub-Saharan Africa, approximately 86% were from just three countries – Nigeria, South Africa and Ghana. The same picture is seen in the UK (Pang et al. 2002). Meanwhile, these Sub-Saharan African source countries are debilitated by HIV/AIDS, malaria and other infectious diseases, as well as an acute shortage of healthcare personnel (WHO, 2006). Various theories have been put forward to explain this phenomenon of a medical 'brain-drain', all of which point to the complexity of the problem for source countries.

Solutions have been elusive. The management of this brain-drain is difficult for several reasons; firstly, there continue to exist strong reasons for health workers to migrate to recipient countries (the 'pull factors') and equally strong reasons to emigrate from source countries (the 'push factors') (Pang et al. 2002; Kirby and Siplon, 2012). Secondly, as Dwyer (2007) pointed out, when health workers decide to emigrate, they are only exercising their human rights, so

the management of the problem will require balancing the need for social justice with an individual's right to migrate in search of a better life. Thirdly, data on migration are often limited, and where they exist, they are mostly not comparable (Diallo, 2004), thus creating further challenges for the management of the brain-drain.

The approach to the management of this phenomenon has seen the formulation of policies for both source and recipient countries that aim to mitigate the overall effects on the source countries. Such policies have included, for example, codes of practice for the international recruitment of health workers by the WHO and recipient countries (Taylor et al. 2011; Taylor & Dhillon, 2011; The U.K Department of Health (DH), 2004), as well as those for improving co-operation and collaboration between nations (OECD, 2010). Other approaches have considered the use of both financial and non-financial incentives (George et al. 2013; Hongoro and McPake, 2004; Kober and Van Damme, 2006) to retain health workers in developing countries, as well as scaling-up the production of these workers in source and recipient countries (Crisp et al. 2008; Narasimhan et al. 2004). Although these approaches have recorded improvements in some areas (Buchan et al. 2009; Dovlo, 2003; Yumkella, 2006), the emigration and loss of healthcare workers remains a major problem for Sub-Saharan Africa (Clemens and Pettersson, 2008). What is significantly advocated in the literature is the need to thoroughly examine the factors, in both source and destination countries, that are pushing health workers to emigrate, and importantly, factors that could potentially retain them in their home countries where they are most needed (Adepoju et al. 2010; Tessema, 2010).

One of the several 'push' factors implicated in the migration of doctors from Nigeria is a 'culture of migration' in the medical schools where the doctors are trained. Massey et al. (1993: 452) explained the essence of this idea of a culture of migration to mean a situation where, "... as migration grows in prevalence within a community, it changes values and cultural perceptions in ways that increase the probability of future migration". The existence of such a culture has policy implications; retention schemes and policies (often targeted at traditional 'push' and 'pull' factors) are less likely to be effective if the targets of such schemes are being prepared for export during their years of medical training in Nigeria. With only 3 doctors to each 10,000 of the population (Mills et al. 2011), Nigeria cannot afford to continue losing doctors without serious consequences. To be effective, retention schemes and strategies will also need to take into consideration the culture existing in the medical schools that encourages

students to emigrate after graduation. However, little is known about this culture, what drives it, and how it influences the aspiration of medical students to emigrate after graduation.

1.2 The scale of the Nigerian medical brain-drain

Accessing reliable data on the scale of migration of healthcare professionals is difficult, particularly in the resource-poor countries of Sub-Saharan Africa, with their weak health systems (Diallo, 2004). However, Labonte et al. (2006) argued that Sub-Saharan Africa suffers the most from the medical brain-drain. Using the Joint Learning Initiative (JLI) 'threshold in workforce density' method of analysis, the WHO estimates that, worldwide, 57 countries have "... critical shortages" of healthcare professionals: 36 of these countries are in Sub-Saharan Africa (WHO 2006). Despite this critical shortage, Sub-Saharan Africa is still a source of healthcare workers to developed Western countries (Hagopian et al. 2004, 2005; Ogilvie et al. 2007; Clemens and Pettersson, 2008), and even though SSA is not the biggest contributor, in absolute terms, to the numbers of international medical graduates practising in developed countries, it is the region most affected (in relative terms) by this brain-drain, with Mullen (2005) reporting that six of the 20 countries with the highest emigration factors come from the continent.

Nigeria continues to lose medical doctors to the developed world through international migration (Mullan, 2005; Clemens and Pettersson, 2008; Naicker et al. 2010; Mills et al. 2011; Tankwanchi et al. 2013), with countries like Canada, not traditionally a top destination for Nigerian doctors, seeing a tripling of their numbers living there between 1986 and 2005 (Labonte et al. 2006). Similarly, Hagopian et al. (2005) reported a 1200% increase in the number of doctors from Nigeria and Ghana practising in the USA between 1981 and 2002. Furthermore, Labiran et al. (2008) reported a 34% increase in the number of Nigerian doctors requesting certificates of good standing (a proxy measure of the number of doctors who emigrated from Nigeria) between 2005 (2341 requests) and 2007 (3567 requests). With that level of loss, Scheffler et al. (2008) forecasted that Nigeria would have a shortage of 16,176 doctors by 2015.[1]

[1] Exact figures or data on current shortages of doctors in Nigeria are not available. However, news media reports quote the present Minister of Health in Nigeria as saying that the shortages of doctors in Nigeria will be by over 50,000 (medical doctors) by 2030 (Okafor, 2017; NAIJ.com, 2017). This seems to suggest that Scheffler et al. (2008)' forecast is probably not far off the mark.

This phenomenon is by no means peculiar to Nigeria in Sub-Saharan Africa; the same pattern of loss is seen in Southern and East Africa (Tessema, 2010; George et al. 2013; Tankwanchi et al. 2013); for example, Ammassari (2005) reported that of the 600 doctors trained in Zambia since independence, only 50 remained in the country. However, like Hagopian et al. (2004) estimated, approximately 86% of the total number of Sub-Saharan Africa-trained medical doctors practising in the USA come from just three countries - Nigeria, South Africa and Ghana; Similarly, the International Migration Outlook 2015 estimated that the vast majority of immigrant doctors from Sub-Saharan Africa, practising in the developed world, come from two main countries in Africa – Nigeria and South Africa (Merçay et al. 2015). While this is true, Tankwanchi et al. (2013) reported that while South Africa's contribution to SSA doctors practising in the US in 2011 decreased by 8%, the contribution from Nigeria increased by 50% in the same year. In other words, while the loss of medical doctors through international migration from South Africa is reported as reducing (see also Labonté et al. 2015), the loss from Nigeria is increasing.

1.2.1 The culture of migration in Nigerian medical schools

Hagopian et al. (2005) reported a phenomenon which they described as well-developed in Nigeria and Ghana: the 'culture' of medical migration existing in medical schools. They described this culture as one in which "... students learn from professors, family members and others about the benefits, both tangible and intangible, of the migration experience" (Hagopian et al. 2005: 1754). They claimed that this culture is so "... well-established" among physicians and their families that "... it would be difficult to find a trained senior medical doctor who has *not* been abroad for at least some number of years during his or her career", and that "... families can name a member on one or other branch of the family tree who is a physician abroad" (Hagopian et al. 2005: 1755). Massey et al. (1993: 452) described the idea of a culture of migration as the situation where, 'as migration grows in prevalence within a community, it changes values and cultural perceptions in ways that increase the probability of future migration'. A history of international migration is therefore very important in the establishment of such a culture in a given community because, the culture of migration of a community flows directly from the community's migration history, and shows in the attitudes of its members towards migration: the way the community views migration, and the aspiration of members of the community to migrate. The existence of this culture in Nigerian medical schools raises the question of how international migration of medical doctors is viewed in the medical schools: it

is unlikely to be viewed as a loss when the culture actively encourages it in the face of shortages of healthcare personnel within the country. It also introduces the influence of the family and other networks (such as kin, friends and professional colleagues), as cultural values that support international migration are mainly transmitted through the family and other networks (Kandel and Massey, 2002). Both of these factors (the possibility that migration from Nigeria after graduation is not viewed as a loss to Nigeria, and the introduction of the influence of family and social ties in the decision to migrate after graduation) seem to agree with the '*new economics of labour migration (NELM)*' theory which sees the family (as well as other larger units) as being central to the decision to migrate.

However, the conclusions reached by Hagopian et al. (2005) were based on a study carried out, in the case of Nigeria, in only four medical schools, raising a number of issues and questions: Firstly, the four schools in the study have a long history of exporting medical graduates, which is the reason they were listed among the 10 topmost suppliers of international medical graduates to the USA from SSA. Consequently, and for obvious reasons, the 'culture' in these schools will be one that supports medical migration. However, this cannot equate to the existence of a "... well developed" culture of medical migration in medical schools in the country as a whole, as the study cannot make any claim to the representativeness of the study sample. The FAIMER® Short Report (2013), reported 34 operational medical schools in Nigeria, and to purposively select the schools with the highest number of migrated Nigerian medical doctors in the US for their study, as Hagopian and colleagues did, means that their findings cannot be generalised to other medical schools in the country.

Secondly, the four schools in the Hagopian et al. (2005) study are all federal schools from the southern part of the country. Is this culture of migration also present in medical schools in the northern part of the country or in other schools not known to be high suppliers of international medical graduates? Importantly, what factors drive this culture within these medical schools? Having the answers to these questions will help in understanding this culture better, and form an important part of managing the effects of this culture on the international migration of doctors from Nigeria. Management policies, on the other hand, are informed by empirical evidence: the empirical data that can lead to the conclusion that there exists a culture of migration in Nigerian medical schools is currently not available.

Further, the study by Hagopian et al (2005), and the figures quoted, are over a decade old, and so there is need to update and expand what is known about this culture in Nigerian medical

schools. To fill this gap calls for a study such as this one, which not only looks into the existence (or non-existence) of such a culture, but also facilitates understanding of its scope, nature, and implications.

1.3 The impact of the medical brain-drain

Medical brain-drain has a profound impact on the individual migrants, their families, the healthcare system, and society in general. The individual migrants benefit financially and materially and are able to develop and improve themselves professionally. Their families also share in these benefits and improve their socio-economic status in their own society. However, the healthcare system they leave behind suffers the effects of their loss: an increase in workload for remaining medical colleagues, and a weakened health care system. The home countries suffer the loss of their trained professionals and consequently, a healthcare system that is left under-staffed. Thus, a medical brain-drain has effects which are both negative and positive. While the negative impacts in developing countries have rightly received considerable global attention, the positive impact of this brain drain is also receiving attention. Sriskandarajah (2005) argued for the development of "... a more comprehensive balance sheet" that assesses both the benefits and losses from international migration to individual countries, and advised that where the net benefits to a source country outweigh the negative impact, reducing migration may not necessarily be an advisable option, even when that country is contending with these negative effects.

1.3.1 The negative impact of the medical brain-drain on the health system

The WHO (2006) estimated that there is a critical shortage of healthcare workers in the world, with Africa suffering the most severe challenge of this critical shortage in relative terms. This critical shortage makes operating a healthcare system difficult, and places additional pressure on the available staff, leading to work-related fatigue, and errors in diagnosis, treatment and care management (Kollar & Buyx (2013). The WHO (2006) reported that Sub-Saharan Africa, with 11% of the world's population, and carrying 24% of the global disease burden, has only 3% of the world's total health workforce; having lost an average of 23% of trained medical doctors to OECD countries through international migration. For example, Shinn (2008) reported that 21,000 Nigerian doctors work in the US alone[2], while there are more Malawi-

[2]According to the president of the Nigerian Medical Association (NMA), of the 71,740 doctors trained in Nigeria (as of 2013), only 27,000 currently practised there (Campbell 2013, Baffour, 2013). This means that there are more Nigerian doctors practising abroad than there are practising in Nigeria.

trained doctors practising in the city of Manchester (UK) than there are practising in their home country; all lost to their source countries through international migration. The loss of these medical doctors by the SSA source countries represents not only a huge loss of financial capital, but also a severe weakening of the health systems in countries that are already struggling to cope with a huge burden of disease, further adding to their underdevelopment in what Kirigia et al. (2006) and Mills et al. (2011) described as "... a vicious circle" of poor health systems, poverty and ill-health. For example, Jenkins et al. (2010) calculated that Nigeria would have five to eight times the number of psychiatrists that it currently has were it not for the loss of Nigerian-trained psychiatrists through international migration. The reported loss of 40% of a cohort of three consecutive graduating classes from a Nigerian medical school to the US, UK and Ireland, in the ten years following graduation (Ihekweazu et al. 2005) is a severe setback to any plans for a sustainable development of the health system in Nigeria. This scale of loss severely affects the capacity of the system to cope with, and provide, adequate healthcare delivery to the population. It deprives Nigerian society (especially the healthcare system) of the leadership contribution of those medical doctors, weakening the system, and widening the gap between medical and healthcare service delivery in Nigeria and that in developed Western destination countries. This is part of the argument that Adefusika (2010) made when she described brain-drain as contributing to "… a widening gap in science and technology between Africa and other continents". Some of the loss of confidence felt by Nigerians in the Nigerian healthcare system can be directly attributed to the loss of some of its best medical minds to international migration: wealthy Nigerians, and those with the means, preferring to have even routine medical check-ups and treatments abroad, because they do not trust the healthcare system in Nigeria (Okafor, 2017; Makinde et al. 2014; Punch News Online, 2016; Makinde, 2016). Thus, Nigeria loses both skilled personnel (through brain-drain) and financial capital (through medical tourism). Medical brain-drain also leads to the depletion of an already endangered middle class in Nigerian society, as medical doctors and other health professionals are an important element of the middle class in Nigeria, as they are in other countries. As Docquier & Marfouk (2006) argued, brain-drain is always detrimental to the source countries, especially when the education and training of those lost were partly funded by the taxpayer, as is the case with medical doctors trained in Nigeria. Schiff (2005), likewise showed that whatever the benefits of international migration, the negative effect of brain-drain is "unambiguously larger" than whatever may be gained from the migration of skilled workers from developing to developed countries.

1.3.2 The positive impact of the medical brain-drain on Sub-Saharan Africa

Medical brain-drain does have a positive side (*brain gain*). While it appears easier to point out its negative impact, recognition of its benefits forms an important part of understanding some of the reasons doctors migrate. The commonly-cited example of such a positive impact of medical brain-drain (and brain-drain in general) is the remittances of emigres sent back to their home countries (Taylor, 1999; Record & Mohiddin, 2006; Tankwanchi et al. 2013). Ratha (2011) estimated the value of such remittances to SSA in 2008 to be greater than the value of international development aid received by SSA countries; and this figure does not take into account remittances through informal routes, such as cash taken home physically by visiting and returning emigres. A news report in December 2016 (Vanguard News online, December 31, 2016) quotes the central bank of Nigeria (CBN) as saying that such "... diaspora remittances constitute the second highest source of foreign exchange for Nigeria after crude oil sales, accounting for as much as $21 billion in 2015 alone". This figure is further projected to rise to about $35 billion in 2016[3] (Ujah, 2016). However, as Hagopian et al. (2005) argued, most of these remittances, if not all, go to private individuals and groups, with little or no direct benefits to local health or education systems, or to the Government which subsidised the training and education of the migrants; as the individuals who benefited from the public funding of their education now remit monies home to their families.

Another way in which this brain-drain benefits source countries is in the form of skills transfer, when emigres return home with the skills they have acquired during their sojourn in the West (*return migration*), or when they visit their home countries for periods of time to contribute, in one way or another, before returning to their country of practice (*circular migration*). Again, successful migrants have also contributed to their home countries by helping to provide medical equipment, texts, supplies and medications (Ratha, 2011; Tankwanchi, 2012)

Lastly, some have made the case for brain-drain to be seen from yet another perspective: it can contribute to the creation of employment opportunities in certain circumstances. For example, Sriskandarajah (2005) argued that some of the skilled migrants leaving source countries may have been unemployed or under-employed in their countries of origin, and that migrating to

[3] Diaspora remittances to Nigeria is reported to have declined in 2016 by 10% to $18.956 billion (Sub-Saharan Africa by 6.1% to $33 billion) (Agency Report, 2017; Onen, 2017; The Sun News Online (2017).

destination countries for better jobs should be considered as gaining employment. This may well be the case in some of the poorer developing countries in Sub- Saharan Africa, where despite the need, and an acknowledgement of the dearth of healthcare personnel, governments cannot finance the employment of the required workforce. In such cases, even when the necessary health personnel are available, the resulting unemployment or under-employment serves as a push factor for their migration. Stark (2002) likewise argued that brain-drain could impact a country positively: the prospect of migrating to destination countries for better jobs and lives can provide incentives for would-be migrants to seek better education and training in their source countries. This, in turn could lead to more investment in education and training infrastructures. Even though this version of brain-gain has been shown to be "... greatly exaggerated" (Schiff, 2005), or unsupported by empirical evidence in the case of medical brain-drain from Sub-Saharan Africa (Rizzica, 2008), the fact that such a benefit does occur in some cases has not been disputed. However, the argument by Stark (2002) assumes that increases in student enrolment for education and training are followed by commensurate investment in staff and infrastructure in the education and related sectors. The evidence from Nigeria (and other Sub-Saharan African countries) however, tells a different story, as the lack of such investment has led to the deplorable state of the education system in Nigeria (FGN, 2012; Omopupa & Abdulraheem, 2013; Anyebe, 2014).

1.4 Medical education in Nigeria

1.4.1 Introduction

Medical education in Nigeria began in 1948 with the establishment of University College, Ibadan, south western Nigeria, by the British colonial government (MDCN, 2006). Over the years however, at least five successive generations of medical schools have been established: the establishment of the University of Lagos medical school (also in south western Nigeria) in 1962 completed the first generation. The second generation were established by the then-existing regional governments, who desired to have a medical school in their respective regions. These included the University of Nigeria, Enugu, in the eastern region, the University of Ife (now Obafemi Awolowo University), in the western region, and the Ahmadu Bello university, Zaria, in the northern region (Ibrahim, 2007).

In 1975, the Nigerian Federal Government opened a further eight new medical schools, in Kano, Sokoto, Jos, Ilorin, Maiduguri, Benin, Port Harcourt and Calabar. These eight form the

third generation of medical schools (Ibrahim, 2007). Since the early eighties, a fourth generation began to be established, primarily by the states which succeeded the regions in Nigeria. In recent times, strings of private universities have established medical schools; these form the fifth generation of medical schools. Currently, there are 37 medical schools in Nigeria, accredited by the Medical and Dental Council of Nigeria (MDCN) and the National University Commission (NUC). Of this number, 31 have full accreditation, while 6 have partial accreditation, from the regulatory bodies (MDCN, 2017).

Table 1: Regional distribution of medical schools in Nigeria

Region	Number of medical schools
South West	10
South East	7
South	9
North West	4
North Central (+ Abuja)	5
North East	2

Source: Medical and Dental Council of Nigeria

1.4.2 The objectives of medical education in Nigeria

From inception, the stated objectives of medical education in Nigeria included, amongst others, the production of medical graduates who would meet "... internationally recognised standards" (Ibrahim, 2007; Malu, 2010). The desire to have a qualification that is recognised internationally was born out of the nationalist drive to have doctors trained in Nigeria seen as comparable to, and of the same professional standard as, doctors trained in any part of the world (Gukas, 2007). However, this desire led to medical training biased towards the West, with little attention paid to the actual health challenges in Nigeria. Over the years, however, these objectives have evolved (following worldwide trends in medical education) and presently, the objectives are more community-based, and with the focus now on primary health care (*Table 2*).

Table 2: Objectives for medical education in Nigeria

1. To provide a sound scientific and professional basis for the training of doctors capable of working anywhere in the country.
2. To provide training to equip these health personnel to render primary health care (PHC).
3. Teaching of PHC should be multidisciplinary, involving all clinical and some pre-clinical departments.
4. The training of doctors should be more community-based. In keeping with the concept of social responsibility, all health training institutions should make a definite commitment to provide a community bias to their training.
5. To produce doctors who would satisfy internationally recognised standards, and who could undertake further training towards specialisation anywhere in the world.
6. To produce doctors with sufficient management ability to play a leadership role in health care delivery.

Source: Ibrahim (2007).

1.4.3 The structure of medical education in Nigeria

Ezeanolue (2011) classified medical education in Nigeria into three categories: (1) basic medical education, (2) post-graduate medical education (residency training), and (3) continuing professional development (CPD). What is briefly described in the following paragraphs refers solely to basic, or undergraduate medical education.

Undergraduate medical education in Nigeria is split into two: 24 months of pre-clinical training and 36 months of clinical training. The courses are delivered by a combination of didactic lectures, demonstrations (laboratory and bedside) and tutorials. Students are then assessed through examinations (written and practical exams in the pre-clinical classes and written and clinical examinations in the clinical classes) (MDCN, 2006; Ibrahim, 2007).

As a result of a dearth of academic personnel, Nigerian medical schools depend on other faculties (e.g., the faculty of pure sciences for courses like physics, chemistry, botany, zoology, and the faculty of pharmacy for pharmacology) in the universities, for the training of medical

students in basic sciences during the first few years before students move on to the clinical schools (Ezeanolue, 2011). The medical schools also depend on various affiliated teaching hospitals, which are separate and independent establishments with their own management, administration, and governing bodies (Ezeanolue, 2011), for the clinical training of their students. This arrangement results in some medical school staff being university (academic) staff only, or hospital (clinical) staff only, while other staff are engaged by both the university and the hospital (hospital consultants engaged to lecture medical students). This leads to a staff status that can be administratively confusing and is particularly confusing to students. A medical school board is therefore made up of staff from both the university and the hospital.

For the purpose of this study and for clarity, 'medical school' refers to both the university and the associated teaching hospital, and 'staff' refers to medical school staff, whether they are clinical staff, academic staff, or both. It also includes non-teaching (administrative) staff at both universities and hospitals.

1.4.4 Admission

Admission into medical school is usually through the universities matriculation examination (UME), or by direct entry for those who have a pre-requisite primary degree in the sciences; both are moderated by the Joint Admission and Matriculation Board (JAMB). The first year of admission into medical school through the UME is spent on general sciences: consequently, those admitted through the UME spend a minimum of 6 years (rather than 5 years) in training. Admission through 'direct entry' is into the second year of study: consequently, direct entry candidates spend a minimum of five years instead of six. In addition to the general regulatory guidelines, each medical school is given admission quotas, which must be strictly adhered to if their accreditation by the Medical and Dental Council and the National University Commission is to be retained (MDCN, 2006; NUC, 2007, 2012).

1.4.5 The funding of medical education in Nigeria

Medical education in public schools is funded by a combination of funds from the various governments which own the universities, and revenues generated through fees from students. The cost of medical education in Nigerian publicly-funded schools is estimated to be at least $25,000.00 per individual student (Mills et al. 2011). This cost does not include the cost of primary and secondary education. Even though students pay school fees, the fees are so small that they cannot sustain or fund the cost of medical education. Consequently, most of the

training cost is borne by the various governments (Federal and State) that subsidise the cost of medical training in Nigerian medical schools.

Privately-funded medical schools cost considerably more, and the fees students pay are equally considerably more. Most of these are run and funded by faith-based missions. As a result of time and resource constraints, my study deliberately excluded these privately-operated universities.

1.4.6 The regulation of medical education in Nigeria

Medical education in Nigeria is regulated by two statutory bodies - The Medical and Dental Council of Nigeria (MDCN) and the National University Commission (NUC). Both bodies were established by law. The NUC relies on Section 10 of Decree No. 16 of 1985, which was incorporated as Section 4(m) of the NUC Amendment Decree No. 49 of 1988 to set minimum standards for medical schools in Nigeria, and to accredit the degrees and awards given by the schools (NUC, 2007, 2012). The MDCN, on the other hand, relies on Medical and Dental Practitioners Decree No. 23 of 1988, Sections I (2a), 8 (I a & b) and 9 (1, 3 & 4), (now CAP M8), which empowers it to regulate medical education and medical practice in Nigeria (MDCN, 2006).

1.4.7 The curriculum in Nigerian medical schools

All the medical schools in Nigeria run on a traditional curriculum, which is a modification of the curriculum of the first-generation medical schools (Ibrahim, 2007). As stated by Brown (1961), this first-generation curriculum was not a fresh curriculum designed to suit the medical needs of Nigeria; rather, it followed British medical school practice, primarily because Nigeria wished for a standard medical qualification that would be accepted internationally. As a result, the curriculum of the first-generation medical schools in Nigeria was operated, and the examinations were conducted, in exactly the same manner as internal examinations in British medical schools, with British examiners taking part (Brown, 1961). Subsequent generations of medical schools in Nigeria simply adopted this curriculum, with a few modifications (Federal Ministry of Health (FMOH) Nigeria, Health System 20/20 Project. 2012). Although curriculum development in Nigerian universities is the responsibility of the senate of the individual universities, the regulatory bodies (NUC and MDCN) set minimum standards that must be met and adhered to in order to obtain, and then maintain, the school's accreditation with the regulatory bodies (Federal Ministry of Health (FMOH) Nigeria, Health System 20/20 Project.

2012). Recognising the flaws in the present medical curricula operated by Nigerian medical schools, the MDCN advocates a definite need for the re-orientation of the medical curriculum to place a greater emphasis on primary healthcare, and for the training of medical doctors to be more community based (MDCN, 2006). Over the years, however, there has been no serious medical academic curriculum planning or review; and where attempts have been made, the results have not made much difference (Ibrahim, 2007): as a result, medical education in Nigeria still operates a British-oriented curriculum, rather than one which is Nigerian-focused.

1.4.8 Structural factors in the Nigerian higher education system

The Nigerian education system is beset by numerous challenges and problems: the lack of a coherent admission policy, resulting in a corrupted admission process (Fatunde, 2009), inadequate funding, poor planning, and erosion of values have led to serious problems in the educational sector, which are frequently reported in Nigerian newspaper headlines. In his analysis of the Nigerian education sector, Moja (2000) observed that Nigerian institutions operate at a higher capacity than they were originally designed for, and argued that this has led to a general perception of low standards and quality of education, based on inadequate instruction, poor training facilities and outdated equipment; and that this decaying infrastructure leads to conditions that encourage brain-drain. He further queried the relevance of Nigerian university curricula to the challenges facing the country, and concluded that the educational system needed a major structural transformation. In a similar vein, the academic staff union of Nigerian universities (ASUU) described the Nigerian educational system as dysfunctional, and not equal to the training needs of the country, and called for a summit to discuss ways in which it could be restructured. In the face of these challenges, which increasingly face medical education in Nigeria, questions arise as to the influence of structural factors (admission policy, funding, design and implementation of the curriculum, administration, training facilities) in Nigerian medical schools, on medical students' aspirations and intentions to migrate after graduation.

The medical training institutions in Nigeria are critically important to the effective functioning of the healthcare system and the health of the population. A fault in the production line of these important institutions, especially that which affects the quality of the products – the graduates – will also affect the quality of healthcare service delivery and the health of the Nigerian people. The failures of the Nigerian healthcare system can therefore be partly blamed on dysfunction

in the medical education and training system. Nigerian medical schools currently produce between 2000 and 3500 medical doctors each year (Labiran et al. 2008; Omoluabi, 2014; Leo, 2015). Of the total number of Nigerian medical school graduates that go into practice in Nigeria, approximately 75% end up working in the public healthcare sector (Omoluabi, 2014). However, a large number of the doctors employed in the public healthcare sector either own private clinics or hospitals, or work in the private healthcare sector part-time; so, the private healthcare sector has about the same number of doctors working full- or part-time as the public healthcare system (Dutta et al. 2009).

1.5 The healthcare system in Nigeria

1.5.1 Introduction

The healthcare system in Nigeria consists of public and private sectors. The public healthcare system provides about 20% of the population with healthcare, and it is structured along the lines of government (Nigeria operates a three-tier federal system of government, consisting of Federal, State, and Local Governments, with the State and Local governments being semi-autonomous), with each operated as determined by the government (or organisational) level, and with considerable overlap between them. At the local government level, primary healthcare is operated by various primary health centres and clinics, run by healthcare workers employed by local governments, and mostly located in rural communities. Most of these centres and clinics are run by nurses and midwives, and are overseen or supervised by community health doctors. These primary health centres and clinics are usually supported by both the State and Federal governments in a variety of ways. Most of them do not admit patients as they are not run as hospitals; patients consult nurses or doctors, receive prescriptions or treatment, and leave, or are referred to hospitals as required. These centres are supposedly designed as the first point of call for patients, being closer to communities, and are the bedrock of the Nigerian healthcare system. At the state level, governments build hospitals with clinics, which are managed and run by hospital boards. These hospitals are mostly located in urban and semi-urban centres, and include various general and specialist hospitals. Healthcare at state level also includes support to local health centres, and sometimes the concurrent building and running of health centres in under-served rural areas. In states where the state government has established medical schools, healthcare at the state level also includes tertiary healthcare services, with the establishment of university teaching hospitals and medical research centres.

The Federal Government is primarily concerned with tertiary healthcare in Nigeria; this involves the teaching hospitals and health research centres, but also includes various Federal Medical Centres scattered across all the states. The Federal Government also supports the various primary health centres in the states and local governments as part of its healthcare service delivery.

There is a growing and thriving private (non-governmental) healthcare sector in Nigeria. This sector is very diverse; it is made up of private for-profit (individual or family) organisations, voluntary organisations such as non-governmental organisations (NGOs), faith-based missions (FBOs), community-based healthcare organisations (CMOs) and traditional African healthcare providers (Kombe et al. 2009). These private organisations together provide healthcare services for approximately 80% of the Nigerian population.

Primarily because healthcare is on the concurrent list[4] of the Nigerian constitution, the governments at each level can establish and run healthcare facilities, depending on their resources. In practice, the three tiers of government and the private sector have established primary health centres and health facilities all over the country (Table 3: *Distribution of health facilities in Nigeria by mode of ownership.*). Most of these centres are staffed by health personnel, ranging from nurses in the smaller centres, to nurses and doctors in some of the larger centres. However, these centres have failed to deliver adequate healthcare to the populace, especially in the rural areas for which primary healthcare was supposed to provide coverage. Due largely to a lack of political will, underfunding, understaffing, corruption, poor management, and public perception of an unsatisfactory quality of services, most Nigerians refuse to access and utilise the services of the primary healthcare centres (Abdulraheem et al. 2012; Alenoghena et al. 2014), preferring to use secondary and tertiary health facilities. These facilities, situated in urban and semi-urban centres, are therefore forced to receive and offer primary healthcare services because they are better staffed and equipped, thus putting serious pressure on both human resources and healthcare facilities, especially at the secondary healthcare level. A lack of clearly defined roles and responsibilities between the different tiers of government, and between the public and private sectors of the healthcare system causes further difficulties for efficient healthcare delivery (Welcome, 2011), with some states

[4] Items on the Concurrent list of the Nigerian constitution fall under the jurisdiction of both the Federal, State and Local governments. This is in contrast to those on the Exclusive list, which are exclusively under the jurisdiction of the Federal Government of Nigeria (e.g. defence, foreign affairs, immigration).

preferring to delve into establishing tertiary health facilities (which is much more capital intensive) while neglecting their primary responsibility of properly funding and running secondary health care facilities; probably because establishing these tertiary facilities gives them more political capital.

Table 3: Distribution of health facilities in Nigeria by mode of ownership.

Zones	No.LGA	FedGovt	State	LG	Privat	Religiou	Communiti	Total	Percentage
North–East	112	24	124	1044	1215	25	5	2437	12
North–West	186	33	138	1928	587	10	270	5396	27
North–	121	20	161	2954	1138	141	177	4591	23
South–East	95	25	300	325	1957	94	57	2758	14
South-West	134	24	124	1044	1215	25	5	2437	13
South-South	126	25	538	285	1261	35	1	2145	11
Nigeria	774	151	1385	7580	7373	330	294	19764	100.0
Distribution		1	7	38	37	2	15	100	

LGA – Local Government Areas (Councils)
FedGovt. – Federal Government

Source: Efe (2013).

1.5.2 Structural issues with the healthcare system in Nigeria

The healthcare system in Nigeria is designed to be community based, with primary healthcare, being closer to the population, as the pillar on which the system runs (Abdulraheem et al. 2012; Alenoghena et al. 2014). However, the healthcare system, just like the Nigerian education system, faces a lot of challenges, resulting in a system that fails to meet the healthcare needs, let alone the aspirations, of the Nigerian population. Asuzu (2004) blamed this failure of the Nigerian healthcare system on many factors, identifying the "... inadequacies in the community or primary healthcare services" as the most important. Like other stakeholders, he calls for reform in the system, as there has been little progress despite decades of primary healthcare policy implementations in Nigeria.

The WHO in its framework for action (WHO, 2007) described the six building blocks that make up a health system, to include: service delivery; medical products, vaccines and technologies; health workforce; health systems financing; health information systems; and leadership and governance. Assessing these six building blocks of the healthcare system in Nigeria reveals why the system has failed to meet the aspirations of most Nigerians. For example, health system financing has remained significantly below the 5% of the national budget recommended by the WHO, with a significant proportion of whatever is budgeted going

into meeting the cost of personnel (Nwosu, 2000). As a direct consequence, Amaghionyeodiwe (2009) noted that despite an increasing spending on health by the government, neither the health status of the average Nigerian, nor healthcare infrastructures, have seen much improvement. On the other hand, Nigeria's contributory National Health Insurance Scheme, which caters for the financing of healthcare for those enrolled in the scheme, provides coverage for only about 5% of the population, while another 1% of the population is covered by different kinds of privately acquired health insurance (Onwujekwe et al. 2009; Odeyemi & Nixon, 2013; Chukwudozie, 2015). As a consequence of this poor public healthcare financing, and very low insurance coverage, healthcare in Nigeria is mainly financed by out-of-pocket payments by service users, with the very poor being unable to access formal healthcare, and having to rely on traditional African (herbal) health services.

Nigerian healthcare workers work in some very challenging working environments (Welcome, 2011; Olu Ogunrin et al. 2007), a situation that leads to frequent industrial action in the healthcare system (Mcfubara, 2015; Oleribe et al. 2016). In the midst of unsatisfactory working conditions and incessant strikes, healthcare service delivery suffers. For example, Olu Ogunrin et al. (2007) described how the low motivation of healthcare workers and poor quality of service delivery go together, with most of the Nigerian population not trusting "... public hospitals for their history of poor services and poor facilities, and believing that private practices were expensive" Olu Ogunrin et al. (2007: 293). Medical products, drugs and vaccines are either not sufficiently available, or the available ones are too expensive, or substandard (Erhun et al. 2001; Raufu, 2002), with some reports claiming that over 70% of drugs dispensed in Nigeria are substandard (Raufu, 2002; Welcome, 2011). There is a general lack of modern medical and healthcare facilities, and those which are available are mostly in a state of disrepair.

Poor leadership and governance, especially in the management of healthcare policies and work-related conflicts, has also been blamed for the lack of co-ordination of healthcare policies between the various tiers of government, as well as the lack of a proper synergy between the public and private healthcare sectors (Olu Ogunrin et al. 2007; Welcome, 2011; Saka et al. 2012). This poor governance structure is one of the reasons Nigeria's health status indicators still remain unacceptably poor (*Table 4: Health indicators in Nigeria*) despite claims of huge government expenditure on healthcare (Mojekwu & Ibekwe, 2012; UNICEF 2014): Nigeria's maternal and child health indicators are some of the worst in the world.

Table 4: Health indicators in Nigeria

Indicator	**2003**	**2008**	**2013**
Trends in child mortality (Per 1000 live births)			37
Neonatal mortality	48	40	69
Infant mortality			31
Post neonatal mortality	100	75	64
Child mortality			128
Under-five mortality	52	35	
	112	88	
	201	157	
Trends in maternal mortality	About 1000/100,000(WHO/UNICEF)	545/100,000	576/100,000

Source: FMOH, 2016

Some of these challenges have been blamed for the continuing loss of Nigerian doctors through international migration (Uneke et al. 2008), which, combined with insufficient production of medical and healthcare graduates, has led to a severe dearth of human resources for health in Nigeria. The resultant effects on the healthcare sector are glaring: health centres lacking basic facilities, hospitals that serve mainly as consulting clinics, a primary healthcare system that is prostrate, human resources for health that are poorly remunerated and motivated, and a health system that has failed to adequately (and appropriately) cater for the healthcare needs of the Nigerian population. As Welcome (2011) described in his study of the Nigerian healthcare system, healthcare facilities (health centres, personnel and equipment) are inadequate, and the system is poorly developed.

In summary, the healthcare system in Nigeria leaves much to be desired. In almost every aspect of assessment, the system fails to live up to the expectations of most Nigerians, despite the decades of reforms and the investment of Nigerian taxpayers' resources. The deficiencies in the system breed a great deal of dissatisfaction, which, amongst other things, pushes medical doctors and other healthcare workers to consider other work options, including migrating from Nigeria.

1.6 The rationale for this study

The continuing loss of Nigerian medical doctors through international migration (Mbanefoh, 2007, Campbell 2013, Baffour, 2013), despite the dearth of medical doctors in Nigeria, is the main rationale for this study. According to the president of the Nigerian Medical Association (NMA), of the 71,740 medical doctors trained in Nigeria (as of 2013), only 27,000 currently practised there (Campbell 2013, Baffour, 2013). This means that there are more Nigerian medical doctors practising abroad than there are practising in Nigeria.

The literature on international migration in SSA overwhelmingly focuses on the structural 'push' and 'pull' factors leading to migration, presenting the African migrant as an individual moving solely for personal reasons, while paying less attention to the wider social and cultural influences at the local level. However, studies on migration elsewhere show the considerable influence that social factors have on international migration (Kandel and Massey, 2002; Fleischer, 2007; Horváth, 2008). This study builds on the work started by Hagopian et al. (2005), but goes deeper, to look at the structural factors operating in Nigerian medical education, and the social influences leading to international migration. The work by Hagopian and his colleagues was very important in many ways: in addition to exploring many of the topical issues on international migration in West Africa, their study explored the perspectives of stakeholders and revealed deeply held views showing support for international migration of medical doctors. Their work, however, did not reveal what drives and propagates this culture in medical schools, and as a result, little is known about it and its effects on the aspirations, and subsequent decision, of students to migrate after graduation. As someone who went through the system during my training, and experienced some of the issues discussed by participants in the study by Hagopian and colleagues, I believe that studying and understanding what makes up this culture, and particularly, how it is propagated and sustained in medical schools, should form an important part of managing the effects such a culture has on the international migration of medical doctors from Nigeria. The main motivating factor for this study is to build on the good work started by Hagopian et al. (2005), by studying the culture in medical schools which supports international migration of doctors, how it operates, and what drives it in the face of the continual complaints of a dearth of doctors in the Nigerian healthcare system.

My study, therefore, aims to contribute to the literature on the migration of healthcare workers from Sub-Saharan Africa (SSA) by describing the social and structural dynamics that help to

propagate a “culture of migration” in Nigerian medical schools, and the relevance of this culture in the international migration of doctors from Nigeria.

1.7.1 Research aim

To define and assess the scope of a ‘culture of migration’ in Nigerian medical schools, and its role in Nigerian medical students’ aspirations to migrate after graduation.

1.7.2 Research questions

To what extent is a culture of medical migration evident in medical schools in Nigeria?
How and why does medical education in Nigeria encourage this culture of migration?
How do social, familial, and structural factors in the medical schools interact to propagate and perpetuate this culture of medical migration?

1.7.3 Research objectives

- To examine attitudes and intentions to migrate among medical students in Nigerian medical schools.
- To examine medical education in Nigeria and how it influences the aspirations of medical students to migrate from Nigeria after graduation
- To understand how social influences affect the aspirations and intentions of medical students to migrate after graduation in Nigeria.

1.8 Organisation of the thesis

This thesis has been organised into seven chapters dealing with different aspects of my study. The first chapter introduces the background to the study, the scale and effects of migration in the Nigerian context, and the rationale and motivation for the study. The second chapter reviews and appraises the literature on international migration as it relates to Nigeria and Sub-Sahara Africa, showing the gap in the literature that this study hopes to fill, as well as the conceptual framework used for this study. In the third chapter, I present and reflect on the methodological basis, and methods of data collection and analysis applied throughout the study. In the subsequent chapters I report the findings of the study: the fourth chapter, for example, reports on medical education in Nigeria, and how the perception of the quality of the medical education that students are currently receiving, by the study’s respondents, influences their views on Nigerian medical doctors migrating abroad, either to train or practise, and their

aspirations to do likewise after graduation. In the fifth chapter, I present the views of respondents on the migration of Nigerian doctors abroad (to train or practise), the aspirations of medical students and young medical graduates to migrate from Nigeria after graduation, and the preparations they are making towards their migration projects. The sixth chapter describes the support systems in the schools, and society in general, which medical students and medical graduates exploit to achieve their dream of migrating from Nigeria after graduation. In the seventh and final chapter, I discuss how a combination of structural factors in Nigerian medical schools, and social factors in Nigerian society in general, combine to create an environment that helps to propagate and sustain, in Nigerian medical schools, a culture which supports international migration of medical doctors.

1.9 Conclusion

The international migration and loss of medical doctors from Nigeria is a complex problem which has been difficult to manage. As stated earlier, there is a need to thoroughly examine the factors, in both Nigeria and destination countries, that are pushing these medical doctors to emigrate, and also, importantly, factors that have the potential to retain them in Nigeria where they are most needed. As one of the factors implicated in the migration of medical doctors from Nigeria, the culture of migration in Nigerian medical schools is still not well explained, as very little is known about what propagates and sustains it. Understanding this culture should form an important part of the management of the effects of the loss of medical doctors from Nigeria. By studying and describing the structural and social factors in Nigerian medical schools that affect and influence the culture of migration, my study aims to contribute to the growing literature and knowledge of the international migration of healthcare workers from Sub-Saharan Africa, as well as its management.

CHAPTER 2

Literature Review

2.1 Introduction

This chapter reviews relevant literature on empirical work on medical migration, the culture of migration, and the Nigerian medical education system. I discuss the literature and show the gaps in the literature on medical migration from Nigeria, and explain how my study will contribute towards filling these gaps. I begin the chapter by describing the strategy used for searching databases for the relevant literature on migration and the medical brain-drain, followed by a description of the literature on brain-drain, especially the medical brain-drain from Sub-Sahara Africa. In the next section, I examine the theories proposed to explain the initiation and perpetuation of international migration, and explain how these theories guided the design and execution of this study; I argue that, despite explaining the initiation and perpetuation of migration from different perspectives, the theories of migration should not be seen as contradictory, but rather complimentary. In the next section, I examine the impact of medical migration in Nigeria, showing both the negative and positive impact. The sections that follow are on medical education and the healthcare system in Nigeria; the chapter is concluded by a summary of the literature on migration, medical education and the healthcare system in Nigeria. In this chapter, I show that despite identifying a culture of migration in Nigerian medical schools as one of the causes of migration from Nigeria, very little is known about this culture and how it affects the plans of medical students for life after graduation; and I explain how my study will contribute to filling this gap.

2.1.1 Searching the literature

Using specific search keywords, an electronic search was carried out in the following data bases: SCOPUS, PubMed, Medline, CINAHL, ProQuest, Science Direct and Google Scholar; looking for articles published between 2003 and 2017. Keywords were generated for the search, based on my research questions and sections of the thesis. These included, *brain drain, migration, recruitment, retention, healthcare workers, healthcare professionals, physicians, Africa, Nigeria, culture and migration, medical education, healthcare system and Nigeria*.

My search inclusion criteria were: 1) the article must be a study that involved primary data collection, 2) the article or study must address the issue of brain-drain, migration, recruitment

or retention of physicians, healthcare workers or healthcare professionals in Africa, medical education and the healthcare system in Nigeria, 3) be published in English between 2003 and 2017.

I was only interested in studies with primary data because I believed I was much more likely to get a stronger and better base of evidence on physicians or healthcare workers brain-drain, medical education and the healthcare system in Nigeria from these studies than from review articles, editorials or personal opinion pieces. It was also my desire to stay current with the trends and patterns of medical brain-drain in Sub-Saharan Africa, hence the limitation to articles published between 2003 and 2017. And certainly, any relevant article had to address the subjects of my interest which were the brain-drain, migration, recruitment or retention of physicians/health care workers from Sub-Saharan Africa, medical education and the healthcare system in Nigeria.

An initial search revealed thousands of hits. I scanned through the titles of the articles to identify potentially relevant articles, and excluded those not meeting the inclusion criteria; particularly, for not addressing the issue of healthcare workers' migration or brain-drain, or health workers' recruitment or retention in Africa, medical education, and the healthcare system in Nigeria. Those that dealt with health workers migration, recruitment or retention, medical education and the healthcare system but in developed countries, were likewise excluded. Titles were identified that captured the themes of medical education, healthcare system, brain-drain or migration or recruitment or retention and healthcare workers or healthcare professionals, and Nigeria or Africa. The abstracts of these articles were then scanned for relevance. I was only interested in primary studies, consequently only articles with abstracts that clearly stated the methodology of the primary study were judged to be relevant for the purpose of my search. After eliminating those that were not primary studies and duplicates, as well as going through some of the reference lists, articles were identified that met my search criteria.

2.2. Brain drain

Early concerns about brain-drain related to the migration of skilled labour from the United Kingdom to the United States of America in the 1960s, and it was during this period, and during research into this migration, that the term 'brain-drain' first emerged (Brandi, 2001). Beine et al. (2008) described brain-drain as "the international transfer of resources in the form of human

capital, and mainly applies to the migration of relatively highly educated individuals from developing to developed countries". The loss of such a highly educated skilled workforce from SSA through migration has remained a problem for SSA countries, with Solimano (2002) estimating that, at that time, SSA had about 300,000 such professionals in Europe and North America. According to Solimano (2002), these professionals included engineers, doctors, nurses, academics, ICT experts, and others, who, by training, ought to be leaders in their various fields, and people who their own country should be relying on to drive growth and development. However, a combination of strife and conflict, harsh socio-economic conditions, political instability, (so called push-factors) and increasingly quality-selective immigration policies in developed countries "… favouring candidates with academic degrees and/or specific professional skills" (Docquier & Marfouk, 2004) have led to the flight of these educated professionals from SSA. As reported by Docquier & Marfouk (2004), while only 2.2% of workers in Africa were highly skilled in 1990, 23% of immigrants from Africa in the same year were educated to tertiary level. By 2000, the percentage of these highly-educated African immigrants had risen dramatically to 31.4%.

Table 5: Estimates of brain-drain from Africa: emigration rates for those educated to tertiary level, 1990 - 2000

Percentages	Countries
% >50	Cape Verde, Gambia, Seychelles, Somalia
25 – 50%	Angola, Equatorial Guinea, Eritrea, Ghana, Guinea Bissau, Kenya, Liberia, Madagascar, Mauritius, Mozambique, Nigeria, Sao Tome and Principe, Sierra Leone
5 – 25 %	Algeria, Benin, Burundi, Cote d'Ivoire, Cameroon, Chad, Comoros, Congo, DRC (formerly Zaire), Djibouti, Ethiopia, Gabon, Guinea, Malawi, Mali, Mauritania, Niger, Morocco, Rwanda, South Africa, Senegal, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe
< 5%	Botswana, Lesotho, Burkina Faso, Central African Republic, Egypt, Libya, Namibia

Source: Docquier and Marfouk (2004); Kapur and McHale (2005)

2.2.1 Medical brain drain

In 2003, the WHO released a report, "*World Health Report 2003: Shaping the Future"*, that gave much-needed global attention to the critical shortage of healthcare workers, recognising this shortage as the most critical challenge facing healthcare globally. This was followed in 2006 by another report, *World Health Report 2006: Working Together for Health*, in which 57

countries were identified as having critical shortages of healthcare personnel, the majority of these being in SSA (WHO 2006). This shortage is the result, not only of insufficient numbers of doctors being trained (Scheffler et al. 2008; Kinfu et al. 2009), but also from the loss of doctors, through migration to developed countries (WHO, 2006; Clemens and Pettersson, 2008, Naicker et al. 2010). This brain-drain affects both poor and affluent countries; however, the poor, low and middle-income countries are the ones that suffer the worst effects, owing to the weak resilience of their poorly developed health systems (Mullan, 2005, WHO, 2006).

2.2.2 Why are doctors leaving?

The reasons for emigration vary from individual to individual, even in the same country; these have been described in terms of 'push' and 'pull' factors for migration (see *Appendix 1: Reasons for migration.*), and have been well documented in the literature on health worker migration (Kline, 2003; Manafa et al. 2009). Although these factors are present in most source countries, the role they play in terms of their significance as push factors differs from country to country, sometimes by sub-region. For example, while financial reasons (Okeke, 2012; Okeke, 2013) and a lack of professional development (Dovlo & Nyonator, 1999), as well as a culture of medical migration (Hagopian et al. 2005) were highly significant as push factors in West Africa (Ghana and Nigeria), they appear to play a less significant role in Southern Africa, where security (Arnold & Lewinsohn, 2010), HIV/AIDS, and increased workload (Thupayagale-Tshweneagae, 2007; Bezuidenhout et al. 2009), as well as high levels of dissatisfaction with working and living conditions in the country (Crush & Pendleton, 2011; Bezuidenhout, et al. 2009; Chikanda, 2011) were more commonly cited. There are however, common recurrent themes and patterns in each country and region. In West Africa, for example, Hagopian et al. (2005) described a culture of medical migration in medical schools as one of the causes of migration, while personal and family networks were also identified as being channels of recruitment (Hagopian et al. 2005; Dovlo & Nyonator, 1999).

2.3 Theories of international migration

Several theories have been proposed to explain contemporary international migratory trends. Though different in their assumptions, concepts and focus of description, they all try to explain the reasons international migration take place, and could be taken as complimentary, and not necessarily mutually exclusive. In the literature (Massey et al. 1993; Hagen-Zanker, 2008; Kurekova, 2011) these theories have been classified according to their subjects of analysis

(initiation vs. perpetuation of migration) and levels of focus (macro, meso, or micro level), as shown in Tables 6 and 7.

Table 6: Theories of migration defined by level of analysis

Micro-level	***Meso-level***	***Macro-level***
Migration cause: Individual values/ desires/ expectancies e.g. improving survival, (acquiring) wealth.	*Migration cause/ perpetuation:* Collectives/ social networks e.g. social ties	*Migration cause/ perpetuation:* Macro-level opportunity Structure e.g. economic structure (income and employment opportunity differentials)
Main theories: - Lee's push/ pull factors - Neoclassical micro-migration theory - Behavioural models - Theory of social systems	*Main theories:* - Social capital theory - Institutional theory - Network theory - Cumulative causation - New Economics of Labour Migration	*Main theories:* - Neoclassical macro-migration theory - Migration as a system - Dual labour market theory - World systems theory - Mobility Transition

Source: Hagen-Zanker (2008)

2.4. Initiation of international migration

2.4.1 The neoclassical economics: macro theory

This theory sees migration as part of economic development, resulting from geographic differences in the supply and demand of labour. Regarded by some as the oldest and the 'best known' of the theories of migration (Massey et al. 1993), this theory postulates that countries with a high supply of labour (labour-abundant countries) but with limited capital (capital-poor countries) have low wages, while countries with a limited supply of labour (labour-scarce countries) but with abundant capital (capital-rich countries) have high wages. Labour movements therefore, occur from the low-wage countries to high-wage countries (Massey et al. 1993; Hagen-Zanker, 2008). This theory assumes that international migration results primarily from wage differentials between the source and recipient countries, and that eliminating this differential will lead to a cessation of international migration. Although it is still the dominant theory on migration, newer theories have emerged, primarily as a reaction to the difficulty of this neoclassical theory in responding to a changing world (Massey et al., 1998): the emergence of new and varying source and recipient countries, and the shifting of

emigration "... from Europe to the developing world" (Kurekova, 2011: 4). Theories of migration, therefore, need to accommodate these changes, brought about by globalisation.

2.4.2 The neoclassical economics: micro theory

This theoretical model is an application of the neoclassical economics theory at the individual level. The micro theory sees the migrant as a 'rational actor', who has all the relevant information on the cost and benefits of migration in both source and destination countries, puts this information together in making a cost-benefit calculation, and then decides to migrate, having satisfied himself or herself that the benefits of migrating abroad out-weigh the costs (Todaro & Maruszko, 1987; Borjas, 1990; Massey et al. 1993). The theoretical assumption here is that international migration results from differences in employment opportunities and income between the source country and the destination country: that all other things being equal, factors that bring down the cost of migration, and increase the chances of employment and better remuneration in the destination country relative to the source country, increase the likelihood of the rational individual migrating (Massey et al. 1993). While this theory focuses on the human capital approach to migration decision-making, it neglects the broader social and structural influences on the decision making of the rational individuals, as well as the effects of the asymmetry of information. Studies of migration have shown that, while wage and employment differentials (as postulated by neoclassical economics theory) have a major role in migration, and can account for some of the migratory flows, models built on such differentials alone fail to account, when tested, for many migratory flows (Kurekova, 2011; Massey et al. 1998).

2.4.3 The dual labour market theory

The dual labour market theory argues that international migration is the result of a continuing demand for immigrant labour in developed market economies, serving as the pull factor for migration (Massey et al. 1993, Hagen-Zanker, 2008). According to Piore (1979) the main proponent, the theory argues that there is an inherent economic dualism in Western developed labour markets that results in a 'segmented labour market': a capital-intensive primary sector with well-paying jobs, and a labour-intensive secondary sector that provides unskilled jobs. That, as a result of low wages and the instability of the secondary sector, employers in developed economies struggle to fill up vacancies in this sector with native workers (who are

drawn towards the well-paying jobs of the primary sector), and are forced to fill them by recruiting migrant workers from developing economies, who do not mind the conditions in the sector. According to this theory, push factors in source countries do not really matter when it comes to international migration. What matters is "... permanent demand for immigrant labour" in the developed economies (Massey et al. 1993), which serves as a pull factor for migration. Thus, this theory focuses on the dynamics on the demand side of international migration, over-emphasising their recruitment practices, leading to criticism of its neglect of dynamics on the supply side (Kurekova, 2011).

2.4.4 World systems theory

This theory points to the structural disruption and dislocation in poor countries in other parts of the world (other than the developed destination countries), resulting from colonial and capitalist development from the West (economic globalization), as the cause of a migratory trend (Massey et al. 1993). World systems theory takes into account structural factors that other theories do not factor in: for example, Hagen-Zanker (2008) described how such colonial and capitalist expansions, like ideological and cultural links, military might, consolidation of land, raw materials, better farming and manufacturing methods, stronger and better transport and communication systems, lead to structural disruptions and dislocations in poor 'peripheral' countries, which eventually create "... a socially and economically uprooted population, with weakened attachments to their land, and more prone to migration". At the same time, an increasing demand for immigrant labour in the West serves to pull these 'socially uprooted populations' away from their poor peripheral countries. This theory thus argues that international migration is the direct result of colonial and capitalist economic penetration of peripheral countries, and that migration has little to do with differentials in wages between countries. The theory also argues that, because ideological and cultural links have already been established in previous times, migration inevitably happens between colonial powers and one-time colonies. But here again, the motivations of the individuals and how they arrive at the decision to migrate have not been taken into consideration, thus making this theoretical model apply mainly to international migration "... only at the global level" (Kurekova, 2011).

2.4.5 The new economics of labour migration theory (NELM)

This theory posits that the decision to migrate is usually a collective one, taken by a "... larger unit of related people, mainly the family or household" (Massey et al. 1993), with a view to minimizing the risk to collective income (Katz and Stark, 1986; Stark, 1991; Stark and Levhari, 1982; Hagen-Zanker, 2008). The main argument of this theory is therefore centred around how households manage risk to their collective income.

In developed economies, risks to income from systems failures are generally mitigated by various forms of private insurance and government established mechanisms (social benefits, universal health coverage, Medicaid), whereas in developing countries such mechanisms don't exist; individuals and households bear the risks of failures in the systems because mechanisms such as private insurance and government protections are either non-existent, too expensive or difficult to access without political patronage (Massey et al. 1993). To protect themselves from risks to their income individuals and households in developing countries are motivated to diversify their income sources. Sending members abroad to work in economies that are not correlated with their local economy happens to be one of the ways families diversify their income sources and insure themselves against risks to their collective income. According to the NELM theory, this explains why families engage in international migration. Such families involved in international migration are still interested in, and engage in local income generating activities; however, in case of failure in the local economy remittances from abroad provide the needed insurance and financial protection. So, while the rest of the theories on migration are centred on the demand and supply of labour as the driving force for migration, the new economics of labour migration theory (NELM) is centred on how the decision to migrate is made; and sees the family (household) as central to the decision to migrate. The family, for example, in a bid to minimize risk to collective income, decides to push or encourage a family member to study science subjects in order to get into medical school, because a doctor has high potential for migration abroad. When the doctor graduates and decides to emigrate, his or her decision, like the decision to study medicine, is not a personal one; rather, it is a collective one, taken by the larger unit – the family – for the good of the family. Here, the cost of migration is shared by the household, as they pull resources together to support the migrant when the need arises (*co-insurance*). Such 'sending' families are usually interested in improving the fortunes of the family in absolute terms, but are also interested in increasing it in relative terms, by the improved social status of the family and its members relative to other families in the sending

communities. The focus of this theory on migration decision making is thus very important to the understanding of the culture of migration in the institutions in my study, and therefore, this is the main theory that influenced the design and execution of the study.

Like other theories of migration, the NELM theory has its fair share of flaws. For example, despite focusing on the how the decision to migrate is collectively made by the larger 'unit' of related people, this theory appears vague on the choice of where the migrant actually goes. It is also criticised for being abstract, 'sending-side biased', and not taking into account other household dynamics, such as the role played by gender (Kurekova, 2011). However, as Hagen-Zanker (2008) argued, "... it is a more realistic and useful theory", and one is advised (Massey et al. 1993; Faist, 2001), as with most migration theories, not to take it in isolation from other theories. For example, this theory (NELM) can explain the initiation of migration, but the perpetuation of migration, and in particular, the choice of where to go, would be better explained by other theories: network theory, cumulative causation theory or institutional theory. Also, while it is possible that the final decision to migrate may have been taken by the family rather than the individual emigrant (NELM theory), it is equally possible that wage differentials between the source country and the destination country (neoclassical economics theory) may have also been partly responsible for the initiation of migration. Consequently, while the NELM is the main theory that guided this study, other theoretical propositions helped in explaining and understanding the phenomenon under study (the culture of migration in Nigerian medical schools).

2.5 The perpetuation of international movement

Although international migration is influenced by a range of factors, once started, what sustains and perpetuates it may turn out to be quite different from what started it in the first place. A separate set of theories have therefore been proposed to explain the perpetuation of international migration, differing from, though related to, the theories that explain its initiation. As with initiation theories, perpetuation theories need not necessarily be seen in isolation: they are dynamically interrelated, and not inherently contradictory (Massey et al. 1993; Arango, 2000; Hagen-Zanker, 2008).

Table 7: Theories of migration, defined by initiation or perpetuation of migration

Initiation of migration	*Perpetuation of migration*
- Neoclassical macro-migration theory - Migration as a system - Dual labour market theory - World systems theory - Mobility transition - Lee's push/pull factors - Neoclassical micro-migration theory - Behavioural models - Theory of social systems - New economics of labour migration	- Migration as a system - World systems theory - Social capital theory - Institutional theory - Network theory - Cumulative causation

Source: Hagen-Zanker (2008)

2.5.1 Network theory

This theory postulates that network ties connecting migrants in destination countries to non-migrants in source countries increase the chances of migration, by reducing both its cost and the risk involved (Haug, 2008; Epstein, 2008). Arango (2000) defined these networks as "... sets of interpersonal relations that link migrants or returned migrants with relatives, friends or fellow countrymen at home". Massey et al. (1993) described these networks of kin, friends, and community ties as constituting "... a form of social capital that people can draw upon" for support and assistance for shelter, employment, obtaining credit, and the general processes of migration and settlement in destination countries. By providing these elements, and any other support required, these networks bring down the cost and risks of migration for new migrants. And because each new migrant helps to reduce the overall cost for subsequent migrants (Massey et al. 1998; Arango, 2000), it makes it easier for more and more people to migrate, leading to the establishment, over time, of migrant communities in destination countries, and better communication channels between non-migrants in source countries and migrants in destination countries (Goss & Lindquist 1995). These networks lead to the perpetuation of migration. Once they become well established, there comes a critical point beyond which migration become self-sustaining and "... progressively independent of the factors that caused it" (Massey et al. 1993).

2.5.2 Institutional theory

This theory argues that once international migration commences, institutions (legal & illegal) arise to render services (for profit or non-profit) to support migrants in their migration projects. These migrant institutions, such as people smugglers, recruitment and travelling agencies, for-profit organisations and NGOs, and others, compliment migrant networks (Goss & Lindquist 1995). They arise in response to regulations put in place by receiving countries to control the entry of migrants into these usually affluent destinations. However, these regulations result in the number of migrant visas granted being disproportionately low when compared to the large pool of applicants; a situation that eventually leads to a thriving illegal parallel market, as would-be migrants resort to all sorts of help to beat the regulations. As a consequence, institutions, for example, legal agencies, advocacy groups, humanitarian bodies, and immigration advisory agencies, arise in source and destination countries to fight both the perceived injustices of destination countries' regulations, and the exploitation of migrants by illegal parallel market forces (Massey et al. 1993). Institutional theory thus argues that, as these institutions develop to help promote and support migration, they become another form of social capital upon which would-be migrants can build their migration projects. In this way, these institutions help to perpetuate international migration.

2.5.3 Cumulative causation

The cumulative causation theory of migration is premised on the fact that international migration, once established, sustains and perpetuates itself by creating an environment that makes the future migration of others much more likely (Hagen-Zanker, 2008; Fussell, 2010). As stated earlier, for every person who migrates, the cost and risk of migration is lowered for those in the source community who want to migrate, making subsequent migration easier. The more people who migrate from a given community, the greater the chance of others migrating from that same community; so "... migration becomes more and more common" (Hagen-Zanker, 2008: 19). The fact that "... each act of migration alters the social context within which subsequent migration decisions are made, typically in ways that make additional movement more likely" (Massey et al. 1993: 22), makes causation cumulative. So, in addition to network connections and institutionalised migration, this cumulative effect of international migration also perpetuates the transnational movement of people.

2.5.4 Migration systems theory

This theory sees the establishment of international migration systems between source and destination countries that are "... characterized by relatively intense exchanges of goods, capital, and people, between certain countries" (Massey et al. 1993: 25). These exchanges or migratory flows are usually a reflection of some form of relationship between the countries; socio-political (colonial ties) or economic (trade, treaties) (Hagen-Zanker, 2008; Kurekova, 2011). Countries may choose to be part of more than one such system, and may also leave any system at any time they choose. The establishment of migration systems may partly account for why migrants from a pool of source countries are drawn to a few specific destination countries. For example, the migration of healthcare workers (nurses, doctors.) from India, Parkistan, and the Philipines to the UK and the US; and the migration of South African healthcare workers to the UK, Australia, and New Zealand. Just like the network and social ties, institutional migration and cumulative causation, migration systems perpetuate migratory flows between source and destination countries.

The various theoretical explanations do not necessarily contradict themselves; they vary, primarily, because they try to explain causation at different levels and through different subjects of analysis, so should, rather, be considered as complimentary. However, because I was interested in studying migration decision making, and the influence of family and social networks on the migration culture in Nigerian medical schools, the NELM was the main theory that guided this study. However, as advised by Hagen-Zanker (2008) and Massey et al. (1993), my study did not apply this theory in isolation. Other theoretical explanations were complimentary: the network theory of migration helped to explain the role of social networks, in influencing the aspirations of participants to migrate, and in perpetuating migratory flows from the institutions; cumulative causation theory, and the world system theory helped with an explanation of the influence of the long history of migration in the medical schools.

2.6 Social influences and international migration

2.6.1 The influence of family and networks on international migration

The influence of family and social networks is very relevant in international migration, and this has long been recognised in studies on the subject (Anderson, 1974; Ritchey, 1976; Hugo, 1981). The NELM theory puts the family or household, and other larger units, such as an

individual's personal and social networks, at the centre of the decision to migrate. In a similar vein, Boyd (1989) argued for the understanding of migration as a social product, resulting not from the decision by an individual to migrate solely for economic, social, or political reasons, but from the interaction of all these parameters.

The literature on migration in SSA has been overwhelmingly focused on the structural 'push' and 'pull' factors leading to migration, always projecting the African migrant as an individual moving solely for personal reasons, while paying little or no attention to the wider social and cultural influences occurring at the local level. Studies on migration in West Africa, which looked into social and cultural influences, focussed on their effects on remittances, return migration, and other aspects of human capital acquisition (Tiemoko, 2004; Ammassari, 2004). Fleischer (2007), on the other hand, looked into the influences of family and networks on migration decision-making (in Cameroon) and showed the considerable impact that the extended family has on the decision to migrate. She argued that what counts is not the personal choice of the individual, but rather the obligations and responsibilities of the individual to the family. Her study, however, was on migration in general: medical migration, on the other hand, is a unique, distinct and different issue, not just because of the very high potential of physicians to migrate (they are economically and financially more independent, and so are relatively more easily able to finance their migration projects; they are also in high demand in most destination countries), but also because of the problems medical migration creates in the health systems in source countries, which, in the case of SSA countries, are already suffering from a dearth of healthcare personnel and seriously struggling to cope with a heavy burden of disease (malaria, HIV/AIDS, cholera, Ebola virus disease, and others). The government in Nigeria (as with other SSA countries) invests hugely in the training of medical students (Mills et al. 2011) in the hope of strengthening the health system; their loss through migration, therefore, represents not only financial and economic loss, but also a weakening of the system, with wider public health and social implications. This necessitates the need for studies that will look into the influences of family and networks, especially their influence in the schools where the physicians are trained.

2.6.2 Social factors and the 'culture of migration' in Nigerian medical schools

Kandel and Massey (2002), and Horváth (2008) argued that a 'culture of migration' is propagated and sustained by family and networks, through their various influences on their members. They noted, in their study of the culture of migration amongst some Mexican

communities, that attitudes are more pro-migration the deeper a respondents' family is involved in international migration. This argument is supported by the work of Horváth (2008), who studied the migration culture of Romanian youth. Boyd (1989) argued that studying the social relations in family and community-linked networks brings about the understanding of migration as a social product, resulting from the interaction of economic, social, or political factors. Migration streams influenced by networks based on family, community ties and friendships are on the increase in Nigeria and the rest of SSA (Hagopian et al. 2005; Clemens and Pettersson, 2008; Mills et al. 2011), such that family, friendships and community ties must now be considered key elements in the migration discourse. These networks serve as a conduit for information as well as for financial and social support and assistance with settlement, connecting migrants in host countries to non-migrants (friends and relatives) in the sending countries, both chronologically and geographically. Consequently, these networks of kin shape the migration outcomes (which could result in emigration, continuation of migratory flows, return migration, no migration).

The *family* in SSA remains a primary socialising agency, and Adepoju (2008) argued that, faced with poverty and other economic difficulties, SSA families have used differential investments in education, and selective migration, as a survival strategy for its members, as well as for its financial and economic mobility. In other words, families may discuss and select a member with the best potential to succeed, then pull resources together and invest in this individual's education preparatory to migration, in the hope and understanding that when this individual succeeds, there will be a steady flow of remittances back home. However, to what extent is the decision to study medicine in Nigerian medical schools influenced by family and networks? And how much of the aspiration of the medical students to migrate after graduation can be attributed to the influence of this culture of migration within the medical schools? In particular, in what ways does medical education in Nigeria encourage and help to propagate this culture? Little empirical evidence exists to answer these questions, as no study has looked into the influence of the Nigerian family and wider networks on the culture of migration in the medical schools where the physicians are trained, and especially, on how this culture influences the aspirations of the students to migrate after graduation in Nigeria.

2.6.3 Nigerian medical school education, a 'culture of migration', and brain-drain.

Medical education in Nigeria has come a long way since it began in 1948. Originally conceived to produce doctors of 'internationally recognised standard', medical education has helped to dramatically improve the doctor-to-population ratio from the lows of the 1950s (Brown, 1961). The rapid expansion of medical education in Nigeria is born out of the need to meet the healthcare needs of a rapidly growing population, as well as the growing demand by Nigerians for medical education (Ibrahim, 2007). As Mullan et al. (2011: 3) argued, this desire and drive for medical education (in Africa) is not because "... doctors will solve the vast unmet health needs", but because Nigerians want to be part of the solution to the numerous healthcare challenges facing their country, and they know that cannot be achieved with the currently inadequate percentage of doctors in the population. However, with so many conflicts, bad economic policies, poor planning and mismanagement of resources, poverty, and declining socio-economic fortunes, the lofty objectives set out for medical education in Nigeria have largely been derailed (Van Niekerk, 1999; Ibrahim, 2007; Malu, 2010; Greysen et al. 2011).

One of the recommendations of the African Regional Conference on medical education, which took place in 1995, was for medical education to be made more relevant to community needs, so as to meet these needs rather than training doctors for export (Van Niekerk, 1999). Consequently, one of the cardinal objectives of the Nigerian medical curriculum is for medical education and training to be community-based. While the evidence shows that the curricula of most Nigerian medical schools are presently biased towards community-based medical education (CBME) (Omotara et al. 2004; Gukas, 2007), its implementation in practice is a different thing altogether: almost all the medical training (tertiary) institutions are located in large urban centres, far away from the large majority of the Nigerian population living in semi-urban and rural settings, who are served by secondary and primary health facilities. Mullan et al. (2011:5) reported that graduates will forgo jobs in these centres (primary and secondary health facilities), preferring urban health posts, because urban centres mirror Western lifestyles and settings.

As in other SSA countries, medical education in Nigeria faces severe staff shortages in almost all departments, poor quality staff, and deficient, out-of-date learning and assessment facilities and methods (Malu, 2010; Mullan et al. 2011; Ezeanolue, 2011). As with other aspects of education in Nigeria, the rapid expansion of medical education was not accompanied by a

commensurate expansion in personnel and infrastructural development (FGN, 2012; Omopupa & Abdulraheem, 2013; Anyebe, 2014). Staff scarcity is so acute that Saint et al. (2003) estimated a 62% staff shortfall in Nigerian medical schools. Halidu (2015), on the other hand, described the effects of poor funding of university education on infrastructural and personnel development in Nigerian universities, in the face of increasing admission numbers. Others before him (Oguntoye, 2000; Anyebe, 2014) had reported similar findings in their studies of Nigerian universities: that the proliferation of universities, and an explosion in university student enrolment, without any increase in funding, had led to a dearth of human and infrastructural resources. Added to that mix are such challenges as crowded classes, decaying clinical training facilities, and the prolongation of training duration as a result of industrial action (Ibrahim, 2007; Malu, 2010; Ezeanolue, 2011). The sum of all these issues is a decline in the standard of Nigerian university education. Medical education is at the sharp end of this decline (Malu, 2010; Ezeanolue, 2011) as it is far more capital intensive when compared to most other areas of education.

To tackle the challenges facing medical education, a review of the curriculum, to reflect advances in education methods and training, had been advocated (Ezeanolue, 2011), along with increased funding to bridge the infrastructural gaps (FGN, 2012; Halidu, 2015). Malu (2010) advocated a mandatory training in education methods for academic staff, in addition to a better synergy between the medical education regulatory bodies (NUC and MDCN). Anyebe (2014) advised Nigerian universities to develop their financial capacities to support and sustain their own academic objectives.

Despite the challenges faced by medical education in Nigeria, graduates of the system have gone on to give a good account of themselves. The fact that many Nigerian medical graduates have done well at the post-graduate level, both within and outside Nigeria, is a testament to both the resilience of the system and the individuals themselves. However, to what extent are the challenges facing medical education affecting the aspirations of Nigerian medical students and graduates to migrate abroad for further training or practice? Several of these challenges have been implicated as push factors for the migration of Nigerian doctors (FAIMER 2013; Ihekweazu et al. 2005). Hagopian et al. (2005) described a "... culture" of medical migration amongst medical schools in Nigeria that is "... well-established"; where "... students learn from professors, family members and others about the benefits, both tangible and intangible, of the

migration experience". In a study of three consecutive graduating classes from a Nigerian medical school, Ihekweazu et al. (2005) found that, ten years after graduating, 40% had emigrated from Nigeria. Recently, an analysis of the 2011 American Medical Association (AMA) Physician Masterfile by Tankwanchi et al. (2013) found a 50% increase in the contribution of Nigerian physicians to the number of SSA medical graduates practising in the US, with graduates from eighteen Nigerian medical schools featuring; seven of these being among the top 20 contributing medical schools from SSA. Over 70% of the medical schools that contributed to the international medical school graduates (IMG) from SSA in that Masterfile came from 10 medical schools, with half of these coming from Nigeria. Although not described as a 'culture of migration' in these other studies (as by Hagopian et al. 2005), with this level of loss, or contribution to the numbers of international medical graduates practising in the US, conclusions can be drawn about the existence of such a phenomenon in Nigerian medical schools, as identified by Hagopian and his colleagues.

However, the word 'culture' is a complicated word that is defined, used and understood in a variety of ways (Giles and Middleton, 1999). Kidd (2001:5) gave a simple definition of culture to mean "... the way of life of a group of people". Following Kidd's (2001) definition, the culture of medical migration can then be defined as 'the way of life of medical students and medical workers' with respect to migration. This way of life would need to include the dominant values (on migration) of the group, which guide the direction of their social changes (beliefs), and what is considered to be correct behaviour and the highest levels of intellectual achievement, and will usually result from the shared, collective and inter-related efforts of the members of the group (Kidd, 2001). As the NELM theory puts it, the decision to migrate is a collective one, taken by a large unit of related people, mainly family or household, with a view to minimising the risk to collective income (Hagen-Zanker, 2008).

The culture of migration is perpetuated by a family with a member working in healthcare, who can look around and point to other families with such member(s) working abroad who are 'doing well' (Hagopian et al. 2005, Kandel and Massey, 2002, Horváth, 2008), and so put pressure on these members to consider migrating abroad like their neighbours. The networks of kin, friends and professional colleagues also perpetuate the culture, as friends and colleagues tell stories about the joys and benefits of practising abroad (Chikanda, 2011; Hagopian et al.

2005). As Kidd (2001: 11) stated, "... we are shaped by our culture, and we shape it and perpetuate it in our day-to-day lives when we interact with others".

Over time however, international migration assumes a different dimension, becoming self-propagating and independent of the push and pull factors that triggered it (Massey et al. 1994). Once someone migrates, the probability of him or her migrating again increases, because "... each act of migration generates a set of irreversible changes in individual motivations, social structures and cultural values that alter the context within which future migration decisions are made" (Massey et al. 1994: 1498); this further deepens and perpetuates the culture of migration, as such individuals become role models for migration (Hagopian et al. 2005).

2.7 Comparable work on the migration of doctors from other parts of Sub-Saharan Africa

Several studies have been carried out in SSA to especially investigate the reasons doctors are leaving. For example, Vujicic (2004) looked into the role of wages in the decision of health workers to emigrate, and concludes that there is no correlation between healthcare workers leaving developing countries for developed countries, and the wage differentials between source and destination countries; and that these wage differentials were so large that small increases in the wages of healthcare workers were unlikely to reduce the loss through migration. Okeke (2012; 2013), on the other hand, found a 10% reduction in the foreign stock of Ghanaian doctors following the implementation of a wage increase in Ghana. Others (Marchal & Kegels, 2003; Crush & Pendleton, 2011) looked into the role that dissatisfaction with working and living conditions in a country plays in the decision to emigrate. Hagander et al. 2013, investigated the importance of personal, professional and infrastructural factors in the decision to emigrate. Fleischer (2007), on the other hand, studied the influences of family and networks on migration decision-making in Cameroon, and reported that the family had a considerable impact on the decision to migrate.

Elsewhere in Africa, a study in Ghana assessed the migration intentions of clinical students and reported that nearly half intended to migrate after graduation from medical school (Eliason et al. 2014). Similar studies in Uganda (East Africa) (Kizito et al. 2015) and Malawi (Southern Africa) (Bailey et al. 2012; Mandeville et al. 2012; Sawatsky et al. 2014), showed a similar pattern, while another study involving ten medical schools in SSA (along with others from

South-East Asia) showed over a quarter of respondents from SSA medical schools indicating their intentions to migrate from Africa after graduation (Silvestri et al. 2014). More recent studies on this migration by Tankwanchi (2012), Tankwanchi et al. (2013) and Labonté et al. (2015) showed the trend is real, and unlikely to change unless something concerted is done about it by both donor and host countries.

2.8 The analytic framework for a 'culture of migration'

The family, or household, and other social connections, are very important in the initiation and perpetuation of migration in Nigeria. The theory guiding this study: *the* NELM, recognises the vital role of the family and networks of kin and friends in any decision to migrate. Kandel and Massey (2002) argued that the cultural values that support migration are transmitted through the family and other networks. To assess the culture of migration within medical schools in Nigeria, this study looks at several factors (see *Figure 1: Analytic framework for 'culture of migration' in a medical school*.), three of which are characteristic of the presence of a 'culture of migration': family migration history, attitudes towards migration (views on migration), and the aspirations to migrate.

(A) **Migration history**: the involvement of an individual's family in international migration brings the migration experience close to them. The more involved a family is in international migration, the closer the migration experience to its members, the more likely the members will aspire to live and work abroad, and the more pro-migration their behaviour will be (Massey et.al, 1994, Kandel and Massey, 2002). In terms of cultural values, the closer the migration experience to someone (the more his or her family is involved in international migration), the stronger and more evident is a 'culture of migration'. Assessing the family migration history of a community can therefore provide evidence of a 'culture of migration'. For example, the 'culture' is likely to be more widespread and evident when one or more of respondents' nuclear family members has a positive migration history. It is widespread when it involves an extended family member, and exists when it is a colleague or friend who has a positive migration history. It is less evident when it is a neighbour they know or have heard of, and non-existent when the migration history involves neither family, friends or colleagues.

(B) **Views on migration:** how the individuals in a community view migration reflects the cultural beliefs of the community on migration. As a community gets more and more involved in international migration, the attitudes and behaviours of individuals in the community become more and more pro-migration. Assessing the attitudes of individuals in such a community, particularly their views on migration, gives an indication of their cultural beliefs. A strongly positive stance on migration, for example, shows an acceptance of migration, and is an indication of a deeper and more widespread 'culture of migration' (Horváth, 2008, Kandel and Massey, 2002). A positive view indicates acceptance of migration, and therefore the presence of a culture that supports migration. An indifferent or lukewarm view shows a neutral position on the existence of a 'culture of migration', while negative and very negative views reflect the existence of a 'culture' that is not in support of migration.

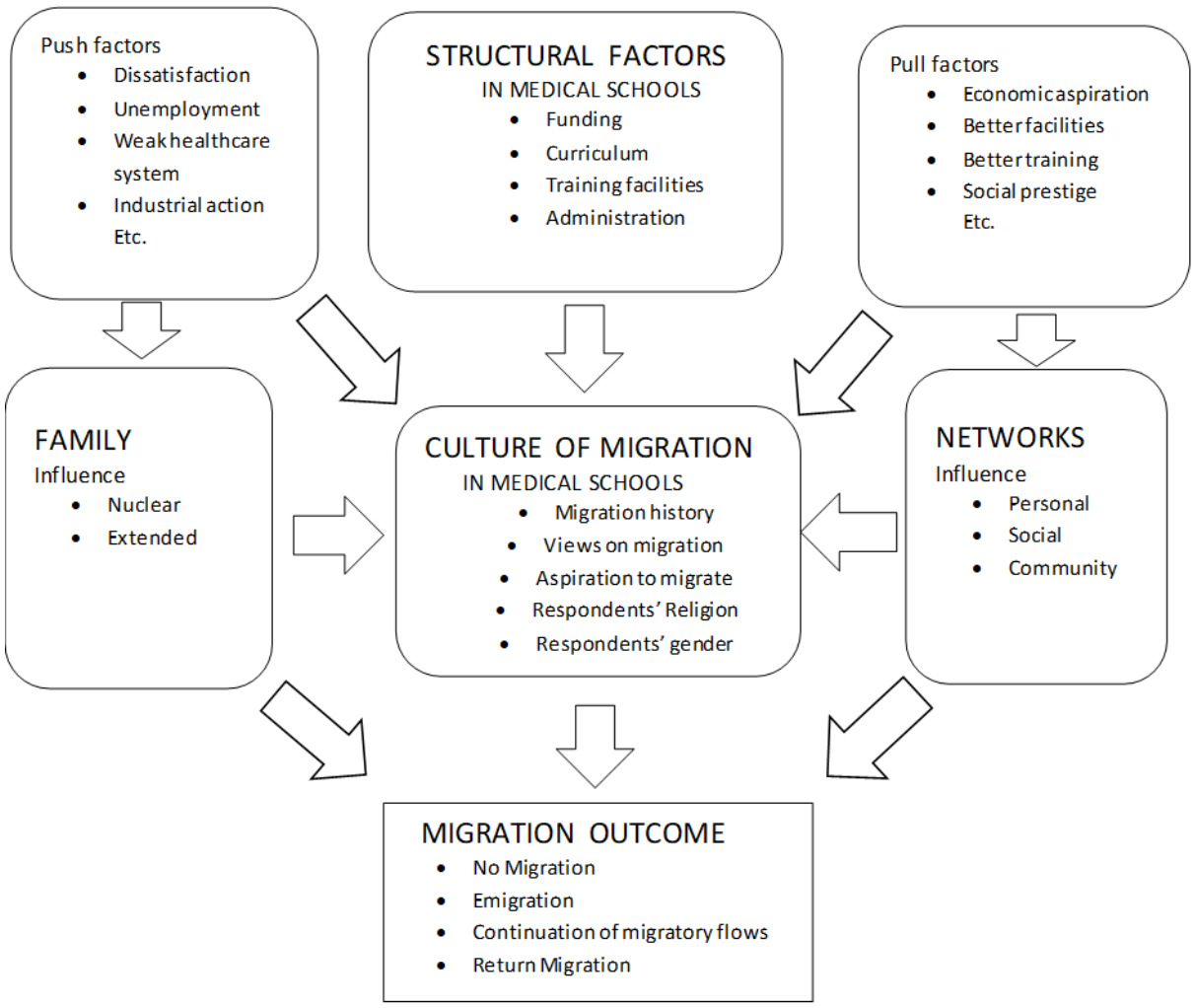


Figure 1: Analytic framework for 'culture of migration' in a medical school.

(C) **Aspirations to migrate:** as the migration experiences of a community increase, more and more individuals also begin to aspire to migrate. The more individuals who migrate from the community, the lower the risk and cost of subsequent migration for those left behind, and the higher their aspiration to migrate themselves (*cumulative causation*). The deeper and the more widespread the culture of migration amongst members of a community, the greater the aspirations of these members to migrate (Kandel and Massey, 2002, Massey et.al, 1994, Horváth, 2008), and as such, the aspirations to migrate can be used to assess the measure of the depth of the culture of migration. When the aspiration is very strong, it points in the direction of a deeper and more widespread culture of migration. On the other hand, a weak aspiration to migrate indicates a direction towards the non-existence of a culture supporting migration.

Other factors (variables) include:

(D) **A respondent's religion** is another variable of interest. Nigeria is split along religious lines into a predominantly Muslim north and a predominantly Christian south. The five schools from Nigeria listed amongst the top ten suppliers of international medical school graduates to the US from SSA (Hagopian et al. 2005) are all from the southern part of Nigeria, which, as noted above, is predominantly Christian. The role played by religion in the emigration of these IMGs from Nigeria is not known; however, this may have been an important factor, or variable, in establishing and sustaining the culture of migration in those schools, as well as in explaining the differences between the northern and southern schools with regard to exporting IMGs.

(E) **Gender:** gender is another important factor, or variable, of interest: studies elsewhere show a family preference for their male members in the early migration culture (Horváth, 2008, Kandel and Massey, 2002). The role of gender in the decision to migrate is therefore relevant to my study, as I am interested in finding out if respondents' gender has any bearing on the culture of migration.

(F) **Structural factors**: structural factors in Nigeria, and particularly in the medical education system, may also contribute to the propagation of a culture of migration in Nigerian medical schools. The NELM theory points to such dysfunction, and failure in the system (market failure) as one of the reasons families engage in international migration, as they seek to insure themselves against the risk and consequences of such failure (Massey et al. (1993). Structural factors are, therefore, very important in migration, and in the establishment of a culture of migration that supports it.

This study adopted measures of these characteristics similar to those of previous studies on migration cultures in communities (Kandel and Massey, 2002; Horváth, 2008), modified to suit the particular purpose of the study. For example, the migration history of respondents was modified to also include the 'history of friends/colleagues' in addition to that of family members; respondents' views on migration, or their attitude towards it, was also added, alongside their aspirations to migrate. Also, respondents' views on migration and their aspirations to migrate were both assessed using a summated five-point Likert response format to a group of questions/statements (*Appendix 3: Sample questionnaire* & *Appendix 4: Questionnaire*).

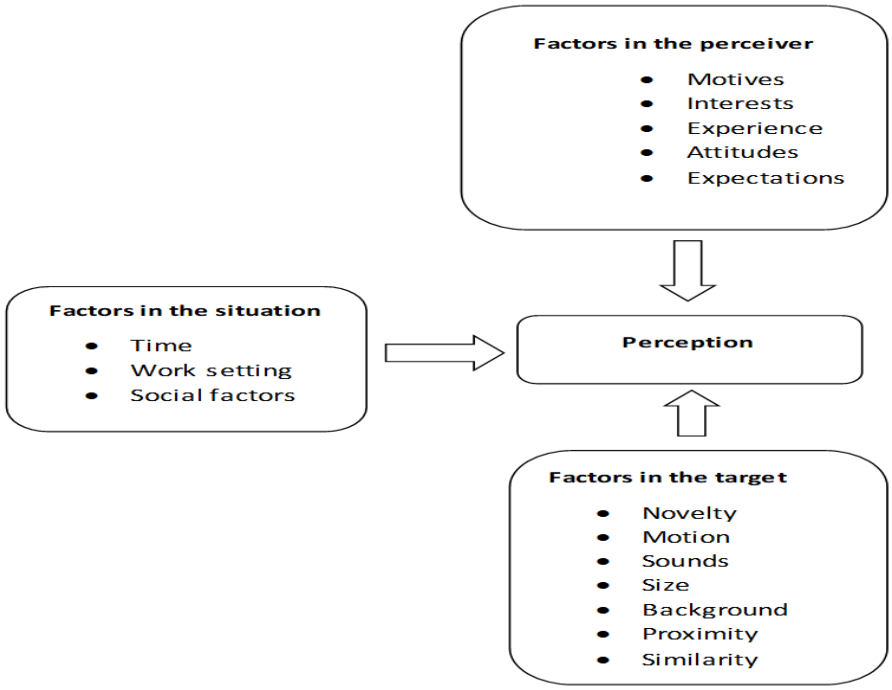
The importance of perception

Perception is very important in the discussions of this study. This is especially so when discussing medical education in Nigeria, and how it influences the behaviours and decisions taken by medical students. Robins and Judge (2013: 166) described perception as "... a process by which individuals organise and interpret their sensory impressions in order to give meaning to their environment". This is very important, because people can exhibit substantial differences in the way they perceive reality. As they (Robin & Judge, 2013; 166) put it, "… people's behaviour is based on their perception of what reality is, not on reality itself". This variation in perception partly accounts for why individuals who, for example, attend the same institution and study on the same course, describe their experiences differently; because we interpret and give different meanings to what we see, hear, and experience. Hard facts or objective reality do not necessarily shape our behaviours or decisions; our perceptions of them do (Bratton et al. 2010).

Perception is influenced by several factors (see *Figure 2: Factors that influence perception)***:** the individual who perceives (his attitudes, interests, what motivates him, his experiences and

expectations), the context of the particular situation (time, environment, setting), and the target or subject or object of perception (Robin & Judge, 2013). One's perception is therefore the product of a combination of these factors. As individuals, it is not possible to take in everything that we see and observe: rather, we take in some details here and there. This leads to *selective perception*, as "... we don't choose randomly; rather we select according to our interests, background, experience, and attitudes" (Robin & Judge, 2013: 170).

Figure 2: Factors that influence perception



Source: Robin & Judge (2013)

The perceptions of the respondents in this study are likewise affected by their personality, interests, background, experience and attitudes, as well as the context within which the subject matter is viewed. Their perception is also affected by the contrast by which they make their comparisons. This is what Robin & Judge (2013: 172) described as *Contrast Effects;*

evaluations of what is experienced by comparison with what has been seen or heard about how it is elsewhere. Throughout the course of this study, the effects of selective perception, and especially the contrast effects on respondents' perceptions can be seen.

2.9 Conclusion

The loss of physicians through migration continues to be a difficult problem for Nigeria and other SSA countries, for which solutions have been hard to find. What is significantly advocated in the literature is the need to thoroughly examine the factors, in both source and destination countries, that are pushing physicians to emigrate, and also, importantly, factors that could potentially retain them in their home countries, where they are most needed (Adepoju et al. 2010; Tessema, 2010). With a medical education system that is in crisis and in need of a serious overhaul, a healthcare system that fails to meet the healthcare needs and the aspirations of most Nigerians, and a Nigerian society that lacks some of the basic social public infrastructures that make life bearable, we know little about the place of the Nigerian medical student who is about to graduate into the job market. In particular, to what extent does this dysfunction in the system have an effect on the plans of Nigerian medical students for life after graduation? A culture of migration in Nigerian medical schools has been implicated as one of the 'push' factors leading to the emigration of physicians from Nigeria after graduation. However, little is known about this culture. By studying what this culture is, and the factors that propagate and sustain it in Nigerian medical schools, much knowledge would be gained that could drive policies geared towards the retention of doctors, consequently improving the availability of HRH in Nigeria.

CHAPTER 3

Methodology

3.1 Introduction

My study on the social and structural factors affecting the culture of migration in Nigerian medical schools was conducted using a pragmatic mixed-method approach that involved a sequential mix of quantitative and qualitative methods in data collection and analysis. This approach allows one the freedom to consider and choose different approaches to data collection and analysis that will work to bring about the best understanding of the research problem (Creswell, 2003, Johnson and Onwuegbuzie 2004). In the sections that follow, I describe the research aim and the objectives I set out to achieve, the influence of my background and knowledge of Nigeria on this research, and the methodology employed to address the research objectives. I explain the pragmatic mixed method approach employed in this study, and then describe the methods used to conduct the research. The last section describes the ethical considerations observed during the research, as well as the strategies adopted to cope with the challenges I met while conducting it.

3.2 Research aim

To define and assess the scope of a 'culture of migration' in Nigerian medical schools, and its role in Nigerian medical students' aspirations to migrate after graduation.

3.2.1 Research objectives

This study was driven by three main research objectives:

1) To examine attitudes and intentions to migrate among medical students in Nigerian medical schools.
2) To examine medical education in Nigeria and how it influences the aspirations of medical students to migrate from Nigeria after graduation
3) To understand how social influences affect the aspirations and intentions of medical students to migrate after graduation in Nigeria.

3.3 The influence of my background on the research

My background in biomedical sciences exposed me to an objectivist-knowledge view of research, typically beginning with a theory, followed by data collection that will either support

or refute the theory. Objectivism views reality and truth as existing objectively and independently of human consciousness, and holds that both can be discovered and measured (Sarantakos, 2013). Unlike constructivism, in which the researcher "... positions himself" in the research (Creswell, 2007), objectivism sees the researcher as detached from, and not affecting, the object under study. Prior to my embarking on this PhD research programme, my experience in research was limited to this approach, which sees reality as objective, 'out there', and detached from the researcher's awareness or consciousness.

However, in constructivist research, one's interpretation of findings is shaped by one's background and experiences (Creswell, 2003). I was introduced to the constructivist approach in the course of my PhD research programme. Applying this approach to my study made it possible for me to appreciate the context within which certain decisions about the subject matter were made, enabling me to understand, in greater depth, the perspectives of my study participants.

Prior to taking my position for this PhD research programme, I worked in the health sector in Nigeria, and not only noticed, but felt, the effects of medical brain-drain on staff levels and staff productivity in hospitals: the staff shortages, the increased workload for those left, and the associated stress that follows working prolonged hours and overtime because of staff shortages. Even more agonising was the awareness that more of the staff were planning to leave; there was uncertainty regarding who would be next not reporting for work because he or she had 'travelled abroad' in search of greener pastures. All these effects of medical migration were happening despite the Government's good intentions, demonstrated by the introduction of several retention programmes.

My background and experience working in the healthcare and medical education sector in Nigeria made it equally clear to me that the subject was a complex one that would require diversity in the data and evidence needed to answer my research questions. My background and experience helped, both in accessing the medical schools, and in carrying out the fieldwork: the staff and students of the medicals schools I approached were much more receptive and willing to assist and participate in the study when I introduced myself as a doctor working in a sister medical school. My experience working in a Nigerian medical school also meant that I

had a fairly good idea of where and who to approach in the schools I visited, what information to request, and generally how to navigate through the schools. This was especially useful when I was conducting interviews and looking for documents, as I had to "... position myself" in the research and interpret what I heard and saw from my respondents.

Nigeria is a vast country: it occupies an area of 923,768 sq. km (356,669 sq. miles) and is made up of 36 states and a Federal Capital Territory (Abuja). It is a multinational country with a population of approximately 184 million, with over 500 ethnic groups speaking over 500 languages. The country roughly divides in half, with a Christian majority in the South and a Muslim majority in the North; a minority of traditional African religions are scattered between them. It is a vibrant and very diverse country, politically, culturally and socially. Being a Nigerian, and having grown up and studied amongst the diverse groups that make up the country, helped me with the knowledge, cultural and linguistic competence needed for the study. For example, even though English is the only official language used in all Nigerian universities, my knowledge and understanding of, as well as competence in, 'pidgin' English ('broken' English) was key in finding my way around. Most of the staff (mostly junior and non-academic staff) were more relaxed and willing to assist me when they heard me speak 'pidgin' English as well as 'proper' English. It authenticated me as one of them, and not just somebody coming from 'abroad'. Knowing when and how to mix the two versions of English was important, and my knowledge and competence in doing this was the key.

My knowledge of the country helped me in planning my journeys to and from study sites, as well as in knowing which areas to avoid and how to stay safe while in the field. My experience of studying and working in a Nigerian medical school also provided me with helpful insight into the administrative and academic structures of the Nigerian university system. Introducing myself as a colleague studying for a PhD gave me some mileage with several of the staff and helped me in many ways that would have been more difficult without these affiliations.

3.4 Using a pragmatic approach for the study

My study on the social and structural factors affecting the culture of migration in Nigerian medical schools was conducted using a pragmatic mixed-method approach that involved a sequential mix of quantitative and qualitative methods. This approach allows freedom to

consider and choose different approaches in data collection and analysis that will work to bring about the best understanding of the research problem (Creswell, 2003; Johnson and Onwuegbuzie, 2004). This approach, however, leads to criticism of the compatibility of the ontological and epistemological philosophies that guide the study: whether one can really combine both philosophies (Sarantakos, 2013; Johnson and Onwuegbuzie, 2004; Creswell, 2003). In carrying out this study, my aim is not to alter the identity and structure of the methodologies, but to employ each method as originally constructed, with their guiding epistemologies kept the same as when they are employed in separate single-method studies.

In the first part of the study, I used a structured questionnaire survey to assess the evidence of a culture of medical migration within Nigerian medical schools. A major challenge during this phase was that of applying numerical values to qualitative data collected via a survey questionnaire about respondents' views and attitudes towards migration; usually, such coding will involve a significant level of subjective judgement. However, Carifio and Perla (2007), and John (2010) advised that by applying a Likert response format to a group of questions/statements, a summated rating scale (Likert-like scale) can be produced, which can be used as a scale with which to measure respondents' aspirations and attitudes. However, Likert-like scales are prone to acquiescence bias - the tendency by respondents to agree with statements, irrespective of their content. To deal with this potential bias, as far as possible I avoided questions or statements that were, or appeared to be, leading.

My second and third research questions are exploratory questions requiring in-depth and detailed understanding of the dynamics of this culture of migration in Nigerian medical schools; to attempt to answer these questions, in the second part of the study I used a flexible explanatory case study design. As Patton (2002) and Sarantakos (2013) argued, using a qualitative method to explore issues facilitates their study and understanding in greater depth and detail. Further, Yin (2014:4), in the same vein, argued that the desire to understand complex phenomena gives rise to the distinctive need for a case study research approach, which "... allows investigators to focus on a 'case' and retain a holistic and real-world perspective". He points out that 'how' and 'why' questions can be appropriately answered using a case study method. To this purpose, I used a flexible, embedded multiple-case study of two medical schools (the University of Benin and the University of Ibadan) to explore how a culture of medical migration is promoted at the institutional level. These two medical schools were

purposively selected as the 'cases' for this study (see *Section 3.8.1: Case Selection*), while two students with a history of family migration formed the embedded units of analysis.

One of the concerns in case study research is the rigour with which the study is conducted. To overcome this concern, this study was conducted rigorously, following a case study protocol (*Appendix 5: Case study protocol*) as a guide to data collection. I also developed a database for my study (to preserve data in retrievable form), which in addition to the protocol, ensures the reliability of my study data. To strengthen the internal validity of my study I have adopted an explanation-building technique in my analysis, and also address plausible rival explanations. On the other hand, I believe that my use of multiple sources of evidence (which eventually lead to the development of convergent lines of inquiry), whilst maintaining a chain of evidence, increases the construct validity of my study.

Another concern with case study research is its generalisability; can one really generalise from a case study research such as mine? The answer to this is provided by Yin (2014), who advised that the goal in conducting a case study should be to expand and generalise theory (analytic generalisation), rather than statistical generalisation. The findings of this case study will therefore be generalisable to theoretical propositions, rather than statistical generalisation to the population.

3.5 Research phases

This study was carried out in three phases: Phase I was the pilot study, when I tested my survey instrument and interviewed key informants on the research subject. In Phase II I carried out actual surveys in four medical schools, while Phase III involved a qualitative multiple case study of medical schools.

3.5.1 Phase I (pilot)

3.5.1.1 Pilot site

For the survey, the sample questionnaire was piloted in medical schools in three universities: Delta State University, the University of Benin, and the University of Nigeria. The original plan was to pilot the survey instrument at just one university, Delta State. This school was chosen for convenience: I am still a staff member at this institution and so, I am familiar with the staff and students of the medical school, which made access easy for me. Being familiar terrain the cost of carrying out the pilot was also much less than it would have been had I

chosen a different school. This familiarity, however, meant I was not exposed to some of the challenges I was to meet going forward in unfamiliar terrain. Being an insider probably also meant that I biased some of the students to give answers that they felt would please me. However, the goal of the pilot survey was to test that the instrument was measuring or assessing what it was designed to measure or assess, and to give me an insight into how to develop a better instrument for my study.

On completion of the pilot survey, and after preliminary analysis of the survey data, amendments were made to the survey instrument. I then proceeded to carry out what I thought would be my study survey in two other medical schools (the University of Benin and the University of Nigeria). However, on my return to Queen Margaret University (QMU), Edinburgh, and after presenting/discussing my work with my supervisory team, we agreed to make further amendments to my survey instrument, and I was advised to consider all the surveys I had carried out up until that point as my pilot survey. So, I ended up with three institutions as my pilot study sites.

3.5.1.2 Gaining access

The initial contact with the medical schools was made by contacting the office of the school secretary in all three schools. A letter of introduction was then presented to the secretaries, introducing me and my research topic, and explaining the rationale for the study. I then requested guidance on how to proceed with the study in each of the institutions.

3.5.1.3 Application for institutional approval of my study

In addition to the ethical approval obtained from QMU, I also applied for and obtained ethical approval from the National Health Research Ethics Committee of Nigeria (NHREC) (*Appendix 6* & *Appendix 7*). However, in each of the three institutions I was advised that the starting point was for me to apply to the office of the Dean of the medical school for approval of my study. This usually also involved application for ethical clearance for my study from the institutions' ethics review committees. Once approval was granted, I was introduced to the course adviser of the final year class, who in turn introduced me to the class representatives.

3.5.1.4 Target population

My target population for the surveys was the final year class, as I felt that of all the levels in the medical schools they were best able to answer the questions in my questionnaire; they have

had both pre-clinical and clinical experience, and they are also about to graduate and so must be considering the career options before them as they go into the labour market.

3.5.1.5 Sampling and sample characteristics

As stated earlier, the first school to be surveyed was chosen based on convenience for the sampling process. The other two schools, however, were selected based on probability sampling; relying on both the Medical and Dental Council of Nigeria (MDCN) and the National University Commission (NUC) for a list of accredited medical schools in Nigeria, a sample frame was drawn from this list, from which a cluster random sample was drawn. The schools were divided into six groups along the geopolitical zones (regions) of Nigeria, with one medical school selected from each. This was to ensure a fair representation of northern and southern medical schools. The two other schools in the pilot survey are part of the southern medical schools, which were randomly selected for the main study, but ended up as part of the pilot survey for the reasons explained in Section 3.5.1.1. These two universities are federally owned and funded universities, unlike the first university, which is owned and funded by a state government.

For each of the selected medical schools, the final year class was purposively chosen to be surveyed, because I believed the final year students would be better suited to answer the questions in my questionnaire.

3.5.1.6 Recruitment procedures

All members of the final year class who were present in the class on the day of the survey were approached. I introduced myself and my research topic, aims, and objectives, as well as the reason for my study. An information sheet covering the study was distributed, and we took time to go through it; any issues or questions raised were discussed or answered before introducing the class to the consent form. Those who agreed to participate after the introduction were then encouraged to sign the consent form in order to take part in the survey. Once the consent forms were signed, the survey instrument was administered. The completed questionnaires, information sheet, and signed consent forms were handed back to me on completion.

3.5.1.7 Pilot questionnaire

The pilot instrument started with instructions on how to complete the questionnaire (see *Appendix 3: Sample questionnaire*). It was divided into four sections: the first section (Section A) asked for basic social and demographic characteristics (age, sex, religion, level of study) and other general questions. The next, Section B, was about family migration history. Sections C and D contained groups of statements about 'views on migration' and 'migration aspirations': in each of these two sections (C & D) the respondents were required to respond by either agreeing or disagreeing with each statement. The completed questionnaires were to be handed in to me at the end of the session.

3.5.1.8 Analysis of survey data

The data obtained from the survey were summarised, and presented with appropriate descriptive statistics (means, frequencies, percentages, standard deviations), charts and cross-tabulations. The relationships between variables were statistically explored, looking at correlates of positive attitudes to migration at a number of levels. The data (pilot and main survey) on respondents' migration aspirations and views on migration were analysed at the measurement-scale level (not individual items on the scale separately), using parametric techniques (Pearson Chi Square test, with test significance levels at $p < 0.05$) with the help of IBM SPSS statistics (version 21). To investigate the joint effect of variables (taking into account any possible correlations among them), and to assess which of the significantly associated variables better predicts students' aspiration to migrate, a multiple linear regression analysis was performed, with respondents' 'aspirations to migrate' as the dependent variable. The associated variables of interest were selected for inclusion into the regression model by a stepwise selection method.

3.5.1.9 The results of the pilot survey

There was a total of 153 respondents in the survey, aged between 21 and 51, with a median age of 25. About two-thirds (65.1%) of the survey respondents were males. Almost all were single (94.8%) and Christian (98.0%). Most of them (74.5%) described themselves as coming from an urban background. Less than half (44.4%) of respondents claimed their main reason for studying medicine was because they were interested in saving lives. Almost half of those surveyed (46.4%) had a positive migration history; however, the overwhelming majority (89.5%) said that the migrant in question had had no influence on their decision to study

medicine. Views on migration were predominantly positive (71.9%), while the aspiration to migrate was likewise positive (62.1%) in the population surveyed: only a few had negative views on migration (5.9%) and the aspiration to migrate (7.9%), with more being indifferent in their views on migration (22.2%) and the aspiration to migrate (29.6%). More males (74.5%) expressed positive views on migration than females (66.0%). Similarly, more males (65.0%) showed a positive aspiration to migrate than females (56.6%): however, these differences were not statistically significant ($p > 0.05$). Likewise, even though those with a negative migration history were more positive in their views on migration (73.8%) compared to those with a positive migration history (69.9%), this difference, again, was not statistically significant ($p > 0.05$).

Table 8: Summary table (pilot)

Gender	Male n (%) 100 (65.4)	Females n (%) 53 (34.6)	X	X	X	X
Marital status	Single n (%) 145 (94.8)	Married n (%) 8 (5.2)	X	X	X	X
Religion	Christianity n (%) 149 (97.3)	Islam n (%) 3 (2.0)	Afri Trad. n (%) x	Missing n % 1 (0.7)	X	X
Views	Negative n (%) 9 (5.9)	Neutral n (%) 34 (22.2)	Positive n (%) 110 (71.9)	X	X	X
Aspirations	Negative n (%) 12 (7.2)	Neutral n (%) 46 (30.1)	Positive n (%) 95 (62.1)	X	X	X
Migration history	None n (%) 80 (52,3)	Neighbour n (%) 2 (1.3)	Friend or coll n (%) 19 (12.4)	Extended n (%) 43 (28.1)	Nuclear n (%) 9 (5.9)	X
Reasons for studying medicine	Saving lives n (%) 68 (44.4)	Better income n (%) 13 (8.5)	Soc. Prest* n (%) 7 (4.6)	Fam. pres** n (%) 13 (8.5)	Childhood drm*** n (%) 45 (29.4)	Others n (%) 7 (4.6)

X Blank
* Social prestige
** Family pressure
*** Childhood dreams

However, the data showed a significant association between migration history and aspiration to migrate ($p < 0.04$), as more of those with a positive migration history expressed a positive aspiration to migrate (72.6%) than those with a negative migration history (52.5%), which at a p-value less than 0.04 is a statistically significant association. Also, those with a negative migration history were significantly ($p < 0.04$) twice as indifferent (67.4%) in aspiration to migrate compared to those with a positive migration history (32.6%).

A further breakdown showed that a higher percentage of those with a friend or colleague abroad (68.4%), those with an extended family member abroad (74.4%), and those with a nuclear family member abroad (66.7%) expressed a positive aspiration to migrate, as against those with no family migration history (52.6%).

Table 9: Aspiration to migrate by 'gender', 'migration history' and 'views on migration'.

		Negative n (%)	Neutral n (%)	Positive n (%)	Total n (%)
Gender					
Male		7 (7.0)	28 (28.0)	65 (65.0)	99 (100.0)
Female		5 (9.4)	18 (34.0)	30 (56.6)	53 (100.0)
	Total	12 (7.8)	46 (30.1)	95 (62.1)	153 (100.0)
Migration history					
None		7 (8.7)	31 (38.8)	42 (52.5)	80 (100.0)
Neighbour		0 (0.0)	0 (0.0)	2 (100.0)	2 (100.0)
Friend/colleague		2 (10.5)	4 (21.1)	13 (68.4)	19 (100.0)
Extended		3 (7.0)	8 (18.6)	32 (74.4)	43 (100.0)
Nuclear		0 (0.0)	3 (33.3)	6 (66.7)	9 (100.0)
	Total	12 (7.8)	46 (30.1)	95 (62.1)	153 (100.0)
Views on Migration					
Negative		3 (33.3)	4 (44.4)	2 (22.2)	9 (100.0)
Neutral		6 (17.6)	12 (35.3)	16 (47.1)	34 (100.0)
Positive		3 (2.7)	30 (27.3)	77 (70.0)	110 (100.0)
	Total	12 (7.8)	46 (30.1)	95 (62.1)	153 (100.0)

Finally, the data showed a strong positive association between respondents' views on migration and their aspirations to migrate, with 70.0% of those with a positive view on migration showing a positive aspiration to migrate, while 81.1% of those with a positive aspiration to migrate expressed a positive view on migration. This association is statistically significant ($p < 0.01$).

3.5.2 Developing the final survey instrument

Following the preliminary analysis of the pilot survey data, and further discussions with my supervisory team, the pilot questionnaire was amended to arrive at the final survey questionnaire. The questionnaire was now divided into six sections (see *Appendix 4: Questionnaire*): the first section (Section A) asks about basic social and demographic characteristics (age, sex, religion, level of study) and other general questions. The next, Section B, is about medical education in Nigeria. Section C asks questions about respondents' post-graduation career plans, while Section D is about their family migration history. Finally, Sections E and F contain groups of statements about 'views on migration' and 'migration aspirations', to which respondents were to respond by either agreeing or disagreeing with each statement.

A couple of questions were added (for example, on medical education), while others were either amended or removed altogether. For example, when a Cronbach's alpha reliability analysis was calculated on the data, one of the Likert statements on views on migration (Doctors who remain in Nigeria for their entire careers are not ambitious) was removed from Section E (Views on migration) of the questionnaire because it was correlating negatively with the other questions in that section. Cronbach's Alpha after removal of this question item from the "Views on migration" was 0.81: that for "Aspiration to migrate was 0.83 (see *Appendix 17: SPSS output*). The amendments to the survey instrument also included an improvement in the layout of the questionnaire, inclusion of answer boxes next to each option, and numbering of all the question items (see attached sample questionnaire for the pilot survey and the final survey questionnaire, *Appendix 3 & Appendix 4*).

3.5.3 Pilot interviews

During the pilot phase, two students were interviewed, using the interview guide in my case study protocol (*Appendix 5: Case study protocol).* The students were randomly selected from their class, following my introduction. Both interviews lasted approximately 30 minutes, and

focussed mostly on the structure and flow of the interviews, and the students' reactions to speaking on the topic of migration and their aspirations post-graduation.

Two other persons considered to be 'key informants' were also interviewed during the pilot phase. One of them had extensive experience researching the loss of healthcare workers from Nigeria and publishing articles on the subject, had worked for and retired from the Federal Ministry of Health, and currently works part-time as a lecturer in community health in one of the medical schools. I sought him as a key informant for my study because of his background, to access some of the data he had collected in relation to the subject of my investigation, and to seek his advice and direction for the collection of certain field data.

My second key informant held the position of chairman of the alumni body of one of the universities in this study: because of this position, he is frequently invited to participate in programmes by both local and diaspora branches of the alumni body, as well as consulted for advice by both current students and alumni.

The interviews with the students were conducted in a quiet discussion room in the medical library of the university, while interviews with the staff were conducted in their respective offices, with notes and audio recordings taken. The results and insights from these interviews went into the refining and production of the final interview guide that I used for my main fieldwork (see interview guide in *Appendix 5: Case study protocol*).

3.6 Phase II (survey)

3.6.1 Project sites

The main survey for this study was carried out in four medical schools. Originally, I had proposed to carry out the survey in six schools, chosen by probability sampling, and six were selected, one from each geo-political zone in Nigeria. However, the security situation in Nigeria as at the time of my field work made it impossible for me to carry it out in two of the zones: The Federal Government of Nigeria was, and still is, waging a 'war on terror' against the Islamic sect 'Boko Haram' in the North East of Nigeria, and at the time of my field work a 'state of emergency' (Martial Law) was in place in the whole zone. Thus, it was not advisable, especially as a Christian from the South of Nigeria, to go into the zone at that time.

At about the same time, the Kaduna State Government in the North-West zone of Nigeria was involved in a violent confrontation with a radical Shiite Islamic sect in Zaria, which is the location of the other medical school (Ahmadu Bello University, Zaria) chosen for the study. Again, it was too risky to carry out field work in the zone. Consequently, I finally conducted my field work in four instead of my proposed six zones, primarily for safety and security reasons.

The four medical schools in which I conducted the survey were: The University of Ibadan in the South-West Zone, the University of Nigeria in the South-East zone, the University of Benin in the South-South zone, and the University of Jos in the North-Central zone.

Table 10: Medical schools surveyed

Region	Medical school surveyed	Admission quota	Number of participants
South-West	University of Ibadan, Ibadan	180	52
South-East	University of Nigeria, Nsukka	150	50
South-South	University of Benin, Benin City	100	54
North-Central	University of Jos, Jos	150	55

3.6.2 Gaining access

As in the pilot study, initial contact was made by contacting the office of the school secretary in all four medical schools. A letter of introduction was then presented to the school secretaries that introduced me and my research topic and the rationale for my study. I then requested guidance on how to proceed with my study in each of the institutions. Dates for the conduct of the study were then established, after discussions with both the course advisers and the class representatives for the final year class. This procedure for institutional access for my study was repeated during the third phase, which involved only two of the above institutions.

3.6.3 Application for institutional approval of my study

At each of the four institutions, I presented copies of the ethical approval from QMU and the National Health Research Ethics Committee of Nigeria (*Appendix 6 & Appendix 7*), in support of my application for approval for my study from the office of the Dean of the medical school: this usually involved application for ethical clearance from the institutions' ethics review

committees. Once approval was granted, I was introduced to the course adviser of the final year class, who in turn introduced me to the class representatives.

3.6.4 Target population

My target population for the surveys was the final year class in each of the medical schools for the reasons stated in Section 3.5.1.4: they were in the best position to answer the questions in my questionnaire, as they have had both pre-clinical and clinical experience, were about to graduate, and so were likely to be considering career options before entering the labour market.

3.6.5 Sampling and sample characteristics

The four schools in this phase of my study were selected based on probability sampling; relying on both the MDCN and the NUC for the list of accredited medical schools in Nigeria, a sample frame was drawn from the list of all accredited schools, from which a cluster random sample was drawn. The schools were divided into six groups along the geopolitical zones (regions) of Nigeria, with one medical school selected from each (the actual survey was carried out in only four of the schools, for the reasons stated in Section 3.6.1). This was to ensure a fair representation of northern and southern medical schools. These six universities are all federally owned and funded.

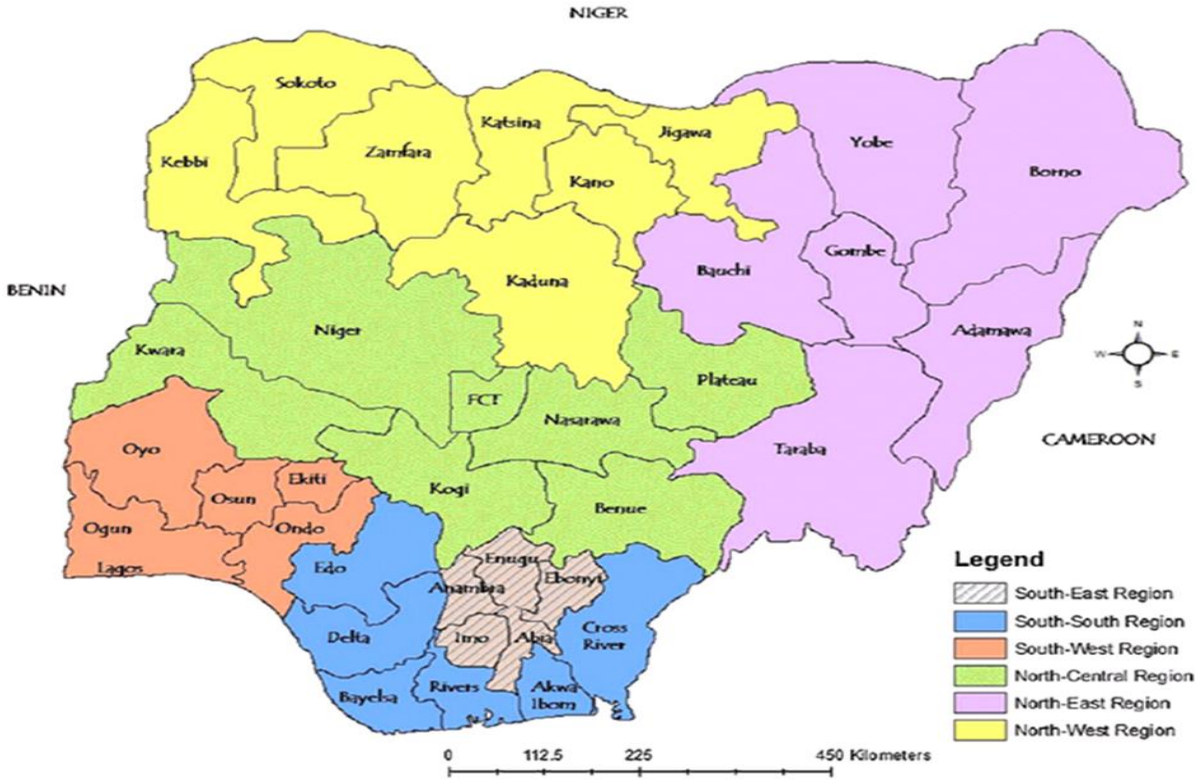


Figure 3:Map of Nigeria showing the six geo-political zones

For each of the selected medical schools, the final year class was purposively chosen to for the survey, because I believed the final year students were the best suited to answer the questions in my questionnaire.

3.6.6 Recruitment procedures

In each of the institutions, all members of the final year class who were present in the class on the day of the survey were approached (the surveys were carried out just before a major class/lecture, with the knowledge, permission and understanding of the lecturers). Following my introduction, I presented the class with my research topic, aims and objectives, as well as the reason for my study. An information sheet covering the study was distributed to the class, and we took time to go through it; any issues or questions raised were discussed or answered before introducing the class to the consent form. Those who agreed to participate after the introduction were then encouraged to sign the consent form, prior to taking part in the survey: those who did not agree were excused. Once the consent forms were signed, the survey instrument was administered. I waited in the class for the questionnaires to be completed, and at the end all the completed questionnaires, information sheets and signed consent forms were handed back to me.

3.7 Phase III (case study)

The third and final phase of my fieldwork was a qualitative case study. This phase formed the main part of the fieldwork, and involved the use of both interviews and archival records in a flexible, exploratory, multiple case-study design (in two medical schools) to explore in-depth, how and why this culture of medical migration is propagated in Nigerian medical schools.

3.7.1 Case selection

While Feagin et al. (1991) and Creswell (2007) argue that to study more than one case dilutes the overall analysis, as there will be less depth to each case, Yin (2014) advises case study researchers to make at least two cases their goal, pointing out that the analytic benefits from multiple case studies can be substantial. He argues that the analytic conclusions from two or more independent cases are more powerful, and lead to direct replications, which strengthen findings when compared to the findings from a single case. To achieve an in-depth

understanding of the culture of medical migration in Nigerian medical schools, and to ensure literal replication of findings, this study employed a multiple case study design, with embedded units of analysis. The 'cases' presented in this study are the two medical schools purposively selected for being rich in the information relevant to the study, judged by their history in relation to migration, as well as demonstrating a very evident 'culture of migration', following the stratification of Nigerian medical schools, derived from a preliminary analysis of data from the first part of the study. These two medical schools, therefore, formed my primary units of analysis.

The embedded units of analysis are two students (and their families), one from each of the schools (the cases), each with a positive history of family migration. Each of them was purposively selected to explore further the role of the family and networks in the phenomenon under study.

3.7.2 Project sites (the cases)

Data collection in this phase was carried out in two medical schools: the University of Ibadan and the University of Benin. Both medical institutions have the common characteristic of consistently being ranked high with regard to the number of their medical graduates practising abroad, and so offer the chance of literal replication of findings.

The University of Ibadan is Nigeria's first and foremost university. Established in 1948 by the British colonial masters, the medical school is the largest of all the medical schools in Nigeria (public and private), according to the MDCN accredited quota for admission (MDCN, 2017). Located in the South West geopolitical zone of Nigeria, this school has consistently ranked the highest among Nigerian medical training institutions with regard to the number of their medical graduates practising abroad (Hagopian et al. 2005; Tankwanchi et al. 2013).

The University of Benin is one of the third generation of universities, established in 1975 by the Federal Government of Nigeria (Ibrahim, 2007). Located in the South-South geopolitical zone of Nigeria, it is the only third generation university to consistently feature near the top of the list of medical training institutions in Nigeria with graduates practising abroad (Hagopian et al. 2005; Tankwanchi et al. 2013).

3.7.3 Recruitment procedures

Following my introduction to the college or school secretary, and on presentation of my clearance from the college, I was introduced to both staff and students, to some of whom I introduced and discussed the possibility of their participation in interviews exploring my study topic; those who indicated interest in the study were left with my letter of introduction, and an explanation of my reasons for wanting them to participate. Each potential participant I approached was asked for suggestions as to who they believed would be helpful in exploring and discussing my topic; this was a 'snowballing' technique to recruit further participants. Those who agreed to participate were given the consent form to study and sign, before being recruited to participate in the study.

3.7.4 Profile of interview participants

Table 11: Interview participants

Participants	University of Ibadan	University of Benin
Students	6	4
House officers	2	2
Staff (academic & non-academic staff)	5	5
Family members (parents)	1	2
Total	14	10

The participants in this phase included final year medical students, academic and non-academic staff of the selected universities, medical house officers, resident doctors and clinical consultants in teaching hospitals, as well as parents of selected students. All the students in this study were in their final year of study, and were preparing for their final exams when the interviews were conducted. The house officers were recent graduates from the medical schools, on a one-year internship at their respective teaching hospitals. The resident doctors were at different levels of specialist training (registrars and senior registrars) at their respective teaching hospitals. Clinical consultants were specialists in various fields in clinical medicine, including surgery. The academic staff who participated were mostly clinical consultants at the teaching hospitals, but were also in the employment of the university as academic staff (to distinguish them from clinical consultants who only work in the hospitals, and do not lecture students as academic staff of the university). The non-academic staff in the study included the

resident doctors in the teaching hospitals, a member of the administrative staff of one of the colleges, and the chairperson of one of the alumni bodies. Finally, three family members (parents) of selected students from the two schools were interviewed: they were parents with a positive personal migration history, having lived and worked overseas, and their children were in the final year of their medical training, and interview participants. Two of these medical students and their parents make up the "embedded" units of my case study. While it was my desire to interview at least, one parent from each of the selected families, I eventually got both parents of one of the selected students to participate (one of the parents of the other selected student was unavailable for the study). As explained in section 3.7.1 (Case selection)**,** these students and their families were purposively selected to get a better insight into the role of the family in the migration aspirations of students and their influence on the establishment and perpetuation of a migration culture. However, while the study focused on these two families as embedded units of analysis for the purpose this study, all the other study participants were asked about the influences of their families, and almost all the staff interviewed also happened to be parents, and so also gave their insights as such. All participants in the interviews were anonymised with pseudonyms in the reporting of the interviews (Please see *Appendix 18: Demographics and characteristics of interview participants* for more on the participants demographics and characteristics.

3.7.5 The interviews

This phase of my study utilised semi-structured interviews as the main method of collecting the data. Semi-structured interviews allow the researcher to use open-ended questions to explore the topic of interest, while still retaining the focus of a pre-planned interview guide. In other words, both the interviewer and the interviewee can dwell on a subject or topic in more detail, and in particular, the interviewer can probe further and deeper into any topic or line of enquiry if he feels the need (Hancock et.al. 1998). Furthermore, openly discussing the topic allows the interviewee the chance to express themselves, as well as relaxing the atmosphere. However, this could lead to interviewees trying to please the interviewer by giving answers that he or she feels the interviewer is looking for (Burns, 2000). Bearing this in mind, the interviews were conducted following an interview guide (see the interview guide in *Appendix 5: Case study protocol*), and in an atmosphere that was as conducive as possible to openness. Participants were reminded of the purpose of the study, and urged to be as honest as possible with their views, understanding and opinions as possible.

This approach was particularly useful as I discovered during the fieldwork that the students, in particular, were very enthusiastic about participating, despite the fact that being in their final year, they were about to sit their final exams. I attributed this enthusiasm to the fact that as they were about to graduate, they were probably already thinking of the job market and practising medicine. Discussing the subject gave them a chance to reflect on their experiences over the previous few years, and their plans for the future: the very reason I decided to focus on the final year class for my study. Staff, on the other hand, appeared to be rather defensive, particularly when questions about their practice and experience were asked; this reaction was much more pronounced among senior and older staff than with junior and younger staff, prompting me to probe further, sometimes leaving the contentious subject only to return to it later in the course of the interview, after building a positive momentum of understanding.

From the onset of the study, I explained to participants what the research and their participation in it would entail; I reassured them that their participation, privacy and all personal identifying details would be protected, and treated with the utmost confidentiality, as the interviews would be conducted in a way that ensured this security.

Typically, the interviews lasted for an average of 45 minutes, conducted in the offices, homes or hostels of participants, and were tailored to suit the convenience of participants. Interview questions and lines of enquiry were adjusted and modified as the fieldwork progressed, and themes started emerging, reflecting the flexibility of the process. I alternated between staff and students, as issues raised by students and house officers were taken up with relevant staff, and vice versa.

The interviews were digitally recorded, with the consent of participants, in addition to field notes taken during the sessions, and after each interview I thanked the interviewee, and expressed my appreciation for their taking the time to participate in the study. It was made clear that if follow-up interviews became necessary, they would be contacted to see if they were still willing and able to participate. Such follow-up interviews were carried out when I felt the need for further clarification, or to pursue an emerging line of enquiry. Audio files of the interviews were stored in a password-protected file in my password-protected computer, waiting for transcription, while consent forms were securely stored in a padlocked box while the fieldwork continued.

3.7.5.1 The structure and content of the interviews

The interviews were conducted following an interview guide that served both as a prompt to keep me on track, and a reminder of the information I needed to collect (see *Appendix 5: Case study protocol*). Generally, the interviews started with introductions and an appreciation of respondents' time and participation in the study. We then moved on to a discussion of medical education in Nigeria: the motivations and reasons for the decision to study medicine, the process of admission to medical school, the funding, the quality of medical education (instructions, medical curriculum, medical texts, and training facilities). This was followed by a discussion of career paths post-graduation, leading to a discussion of migration, including whatever plans the participants were making towards migration, and what support they received or were expecting to receive. The role and influences of the family and social networks then came in, before concluding with their opinion on what could be done to retain doctors in Nigeria. The interviews were conducted in such a way that new leads were followed up when they emerged, while continuing to maintain the focus of the study.

3.7.5.2 Power balance during the interviews

Out in the field in the early part of my data collection, it became obvious that my research topic and focus on the migration of doctors generated a lot of interest; students were very eager and enthusiastic to participate in the survey, and many of them had questions and contributions about the topic. The same enthusiasm was also observed during the interviews, as those I approached were eager and had a lot to say. Part of this enthusiasm I attributed to general interest in migration and its discussion, and part to the respect generated following my introduction as a Nigerian studying in the U.K, as I know Nigerian students usually respect Nigerians who are studying abroad. This later reason made me conscious of the likelihood of a power play or power imbalance tilted in my favour (Morse, 2000). To deal with this possibility, I emphasised the fact that I was a fellow student trying to meet my study requirements, and reminded them that I had been through the same stage they themselves were at a few years previously. This helped to build a relationship between us, built on our similar backgrounds. Sarantakos (2013: 288) described this kind of relationship as one that gives entry to the respondents' world. Also helpful was the fact I had met with the participants before, when conducting the surveys. Conducting the interviews at a place of their choosing (mostly their hostel rooms) was equally helpful.

Interviews with the staff were rather different, particularly the senior staff (professors, senior consultants). Sometimes, the time it took just to persuade some of the senior staff to sit down and engage in discussion with me was rather intimidating. I could see how busy their schedules often were, so once I had the chance to sit with them for a discussion, I had to make the most efficient use of the time and opportunity. However, the staff were very friendly and did their best to be helpful. Presenting them with my letter of introduction in advance, and arranging the time and date for interviews with secretaries (where necessary) was very helpful here. Having a good grasp and understanding of what I wanted from the interviews also made for an efficient use of time and opportunity, as well as gaining interviewees' respect.

3.7.6 Ethical considerations

Ethical approval for my study was granted by Queen Margaret University(QMU), Edinburgh, before I proceeded with my fieldwork for data collection (see *Appendix 6*). In addition to this, I also applied for and obtained ethical approval from the National Health Research Ethics Committee of Nigeria (NHREC) (see *Appendix 7*), a process that involved training in Human Subject Protection Education, and the Nigerian National Code for Health Research Ethics (see *Appendix 8* & *Appendix 9*). However, in each of the institutions where my study was carried out, I applied for and obtained ethical clearance from their own ethics review committees for my study (see *Appendix 10*, *Appendix 11* & *Appendix 12*).

My study's target population was made up of literate adults who were either studying or working. Being adults, participants were considered to be in a position to give valid consent before being recruited to participate in either component of the study. Consequently, following written and verbal explanations, I sought and obtained their informed consent before recruiting them as study participants. Those who refused consent were respectfully excluded. Signed consent forms were kept in a padlocked box and securely stored while in the field, and on return to QMU were kept separately from recorded data.

From the onset of the study I explained to participants, both verbally and in written form, what the research and their participation entailed, and I assured them that their participation, privacy and all personal identifying details were protected and treated with the utmost confidentiality. The questionnaires were produced and coded in such a way that ensured the highest level of confidentiality and anonymity. For example, questionnaires excluded respondents' names and

other personal identifying information, as well as the names of the associated medical schools. Likewise, the interviews were conducted in a way that protected the privacy and confidentiality of participants. Recoded audio files were stored in a password protected folder on my password protected computer. Interview transcripts were anonymised, and pseudonyms were used to protect participants throughout the analysis and discussions that followed the fieldwork for this study. All my study documents and data were protected and stored safely, both in the field, and on return to QMU.

3.7.7 Analysis of the interview data

Making sense of the data started in the field while conducting the interviews, and involved interpreting what was said, as well as what was seen, making sense of it or assigning meaning to it, and writing notes. This information was then put together to guide the direction of further data collection. For example, during interviews with some of the students, the issue of rapport between registrars and consultants was frequently raised, and led to the emergence of a new line of inquiry: this information was quickly put together, analysed, and new questions developed for subsequent interviews with both registrars and consultants.

Following completion of the fieldwork, audio files of the interviews were transcribed word-for-word into Microsoft Word, a time-consuming process: on average, each interview took 6-10 hours to transcribe.

Data analysis continued with repeated reading and studying of the interview transcripts, to familiarise myself with the data, and to get a clearer picture of emerging and recurrent themes, while noting themes which had been expected from the theoretical proposition guiding the study. The first set of themes and sub-themes that emerged were mainly descriptive in nature, illustrating the heading or topic under discussion. However, upon further reading/studying of the transcripts, the themes became increasingly analytic in nature, as they started representing more and more of my understanding of what was heard and seen, or the inferences I made from what was heard and seen. Through the procedure of constant comparison (Kielmann et.al. 2011), analytic themes emerged, forming the beginning of a coding framework from which I developed a coding matrix for the interview data (see *Appendix 13: Coding matrix*).

The coding matrix was applied to the interviews; to ensure consistency in the process, I piloted the coding system with a set of data (4 interview transcripts). Once satisfied that I was getting

consistent results, I proceeded to the coding of the main data, while continuously checking back and forth for consistency in the application of the coding matrix.

The final process of the analysis of the interview data followed an explanation-building technique (Yin, 2014), guided by the original analytic framework for this study, the main goal of which is to build an explanation of the cases by analysing data collected from multiple sources (interviews, documentation, and archival records). This analytic strategy follows the theoretical proposition guiding the study, and involved organising the case study according to a descriptive framework, at the same time examining relevant plausible or rival explanations.

3.7.8 Data management: introduction to NVivo 10

Following the transcription and development of the coding system for the interviews, I transferred the data to NVivo 10 for management. Being compatible with Microsoft Word, it was easy to import the interview transcripts into the software. Similarly, themes, codes and sub-codes from my coding matrix, audio files, e-journals and e-documents are also supported by the software, aiding the organisation and management of my data. Actual coding of the interviews was undertaken using the software as I read through the transcripts line by line, coding into the nodes developed from the coding matrix. Using the software helped me to link codes to texts, explore the relationship between codes, and provide frequencies of codes used.

Using NVivo to organise and manage the data took a lot of my time; however, once I became used to the software and got my data organised, I found that it saved me considerable time during my analysis; with all my data, documents, journals, files, all stored in one place, locating and retrieving data was easier and quicker. It also helped me to have better control of access to my data, as they were password protected in both the computer and the NVivo software.

3.7.9 Documents and records

Yin (2014) advises the use of multiple sources of evidence in case studies: this case study employed the use of records and documents, in addition to interviews, as sources of evidence. The first set of records employed in this study were the records of request for verification of results and study status for overseas qualifying exams: for example, for any foreign trained medical graduates or students to register and sit for the United States Medical Licensing Examination (USMLE), they must have their status as medical students or graduates of the

relevant institutions verified by their own training institutions. In North America, two bodies make these requests for the verification of medical school results: The Education Commission for Foreign Medical Graduates (ECFMG) for the United States of America, and the International Credentials Evaluation Service (ICES) for Canada. Each of the two schools in my case study keeps records of applications for such verification requests (see *Table 14: Graduation numbers vs requests for verification*). The record of these requests can therefore be used as a proxy for levels of migration from these institutions, just as the request for certificates of good standing were used by Labiran et al. (2008) to calculate numbers of migrants intending to sit for the British qualifying exams. The other records employed were the records of graduations from the medical schools; these were necessary to have a basis or reference point for comparison of yearly graduation versus migration levels (see *Section 5.5.3: Request for result verification).*

3.8 Conclusion

This study was conducted using a pragmatic approach that incorporated both quantitative and qualitative methods in data collection and analysis. One of the main advantages brought to the study by this approach was the flexibility to explore and use every tool that I felt would be helpful in attempting to answer my research questions. It enabled me to assess the existence of a culture of migration in different medical schools, using quantitative methods for data collection and analysis, followed by qualitative interviews with study participants to achieve understanding of the components of this culture, and how it is propagated and sustained. My background and experience of graduating from, and working in, a Nigerian medical school was invaluable in carrying out this study, especially in conducting the fieldwork. Finally, analysis of the study data and findings followed an explanation-building technique, making use of both quantitative and qualitative analytical methods to explain what makes up this culture of migration, and how it is propagated in the Nigerian medical schools studied.

CHAPTER 4

A DYSFUNCTIONAL MEDICAL EDUCATION

"The Nigerian educational system is dysfunctional and not matched to the training needs of the country" (Academic Staff Union of Universities).

4.1 Introduction

The educational system in Nigeria faces numerous challenges and problems (Fatunde, 2009). Moja (2000) pointed out how Nigerian institutions operate at a far higher capacity than they were originally designed to do, and argued that this has led to a general perception, among the public, of low standards and a low quality of education. He further queried the relevance of the curricula of Nigerian universities to the challenges facing the country, and concluded that the Nigerian educational system needed a major structural transformation. Other studies that have looked into Nigerian higher education have reached similar conclusions (FGN, 2012; Anyebe, 2014; Halidu, 2015). In this chapter, I explore the extent to which perceptions of the quality of medical education affect the aspirations, plans, and behaviours of Nigerian medical students to migrate abroad following graduation. The chapter also explores the effects of frequent industrial action in the Nigerian medical education system on the quality of medical training, as well as the experiences of resident doctors and how these too affect the aspirations of students.

4.2 The challenges of university education in Nigeria

4.2.1 Medical education in Nigeria

Although this study was primarily concerned with basic medical school education, it quickly became obvious, from the early part of the study, that what respondents were describing in our discussions related to both basic medical school education and post-graduate medical education (residency training). As a result, the demarcation between undergraduate and postgraduate medical education appeared blurred in many of the discussions. For example, in discussing the education that they were currently receiving, most respondents described the education at the teaching hospitals. In the same way they referred to training facilities at the teaching hospitals when discussing the medical training facilities: understandably, because that was where they received their training; as discussed in section 1.4.3 (*The structure of medical education in Nigeria*) once undergraduate students cross into clinical classes, they are trained at the teaching

hospitals, alongside the residency training of resident doctors. Consequently, the medical education described, especially, the training facilities, is the same as for the post-graduate residency training.

4.2.2 Perception of the quality of medical education

Higher education in Nigeria, including medical education, has been generally regarded by stakeholders as being deficient (Fatunde, 2009; Mojar, 2000), with frequent reports in the news media enumerating and berating the various challenges facing the educational system as a whole. Ezenolue (2011) identified the common denominator of all the numerous challenges that the medical education system in Nigeria faces as inadequate funding. In his study of Nigerian federal university funding, Halidu (2015) reported gross underfunding of these institutions. He considered that such underfunding "... has resulted in a dearth of physical facilities, brain-drain among seasoned academics, paucity of well-equipped libraries and laboratories, and deficiency of personnel training and development in Nigerian universities". In a bid to overcome the shortfall in public funding in the face of increasing demand for university education, most public Nigerian universities have resorted to uncontrolled admissions, without commensurate improvements in personnel and training facilities, thereby over-stretching the existing facilities and personnel beyond their carrying capacity (Saint et.al., 2003; Anyebe, 2014).

An inter-ministerial committee set up by the Nigerian government and commissioned to undertake the 'needs assessment' of public universities in Nigeria, released its report in 2012 (FGN, 2012). They reported a combination of infrastructural and personnel challenges as being at the heart of the problem of declining scholarship faced by Nigerian universities. For example, the report found:

> *"Less than 10% of Nigerian public universities have video conference facilities, less than 20% of these universities use interactive boards; more than 50% don't use public address systems in overcrowded lecture rooms/theatres. Internet services are non-existent or epileptic and slow in 99% of Nigerian public universities. Library resources are outdated and manually operated, and as such no university library is fully automated. 76% of these universities use wells as a source of water, 45% use pit latrines, 67% of students use the bush as a toilet, 77% of these universities can be classified as glorified secondary schools."*

About the personnel in Nigerian public universities, the report showed unmanageably low lecturer-to-student ratios, with some being as low as one lecturer to a student population of 144 (1:144), compared to a ratio of 1:3 seen at the University of Cambridge, or 1:4 at Harvard University.

Medical education in Nigeria has not been spared the effects of this underfunding, and the resulting personnel and infrastructural challenges. Moja's (2000) observations about the general perception of low standards and low quality of education in Nigerian universities rings true in the medical schools in this study**.** Study respondents perceived the quality of medical education in Nigeria as being of a lower standard than that in the past**.** For example, a professor presented her difficulty in coping with the increasing student population as an illustration of the waning standard of medical education:

> *"Well, I will say it's fair; not as good as it used to be; because... erm, lecturer student relationship, that close relationship (I know everything about my students) is no longer there, and facilities are not so wonderful anymore. When I first became an academician, if I had students doing their posting under me, I would know all their names, I would know their little problems, I knew how to help them personally; because they were few. But now it's not quite like that anymore … I would say the number has gone up. Although something is being done; the university has been cautioned and the quota is trying to go back to what it used to be at the beginning."*

In her view, the overcrowding in classes, in addition to making it difficult for her to have a close relationship with her students, also led to over-stretching of training facilities. Another staff member agreed that the standard of medical education was declining, blaming it on the poor state of the Nigerian economy, which he believed was negatively affecting the funding of medical education.

> *"Medical education in Nigeria, and medical training is gradually going down, as compared to what it was in the 70s, 80s and probably early 90s. The reason is quite obvious, because in any society the economy of the society affects all parts of the society. That's one of the reasons I think it is not the same anymore; the quality of medical training is down. Specifically, in the area of facilities for training. The facilities are no longer available. Like for instance, those [facilities] in the pre-clinicals, many of them don't even have enough cadavers to train students in anatomy. Even in*

> *physiology those things they use for practical classes are no longer available; most of the times those things are done in theory rather than experiencing them practically*

The unavailability of practical training facilities means the training has become more theoretical. This view was corroborated by students, who berated the heavy focus on theory when compared to practical training. For example, Kemi, a 27-year old student, complained that students were 'stereotyped' towards the theoretical aspect of learning:

> *"You are being stereotyped towards the theoretical aspect of it. And your life begins during houseman-ship when you are allowed a bit to know the clinical aspect a bit better. So, it is still much more on [the] theoretical aspect. … For instance, I never had any access to see a radiotherapy machine, I have never seen, in fact to even be [in] an ECG room. I remember when we did our final year medical exam in medicine, they brought one ECG strip, and none of us could identify it. None in the whole class. Nobody."*

While it is possible that it is the absence of practical and clinical training facilities which forces teaching staff to focus on the theoretical aspects, in an attempt to bridge the knowledge gap, some staff genuinely believe that this is what their job description requires of them. This is especially so for staff who are employed by the university rather than the teaching hospital, and whose jobs are therefore purely academic; unlike the clinical staff of the teaching hospitals, who are engaged by the universities to teach medical students as honorary consultants. The students, however, see the problem as teaching staff focussing too much on theory at the expense of practical or clinical training. Asked to describe the quality of education they received during their training, students commented on the lack of practical hands-on experience:

> *"That is the problem with the system. They just expect you to mentally picture yourself doing the practical aspect. I believe they call it 'alternative to practical'. But on the day of clinical exams you will be expected to demonstrate the clinical skills that you have not had a chance to practise."*

Gabriel, a 26-year old student, observed that some of their instructors are *"... only good at giving out the theoretical knowledge"* while doing little to demonstrate the practical aspects of their teaching:

> *"Theoretically, we do a lot; we have good lecturers, we have well-trained people and all that. But move to the practical knowledge; we are a bit handicapped as regards to the practical learning. Some of our lecturers just prefer the theoretical aspects."*

Medical training, both at the pre-clinical and clinical levels, needs to be largely a hands-on practical training exercise. Students justifiably perceive the quality of their training as deficient, because they have not had sufficient practical and clinical exposure during their years of training in the medical schools.

4.2.3 Quality of instruction

They way students felt about the quality of the instruction they were receiving from teaching staff affected their perception of the quality of education they were getting in medical school. Although most (72.0%) of the students surveyed in this study felt happy with the quality of instruction (*good*, 53.6%; *very good*, 16.0%; *excellent*, 2.4%), over a quarter (28.0%) were very critical of the quality of instruction they were receiving, describing it as inadequate (see **Error! Reference source not found.**). Likewise, even though most of the students interviewed acknowledged and appreciated the efforts of their lecturers in teaching and passing knowledge on to them, they still had reservations about the system. Some believed that the system forced them to work principally in order to pass exams, recounting how the focus of studying is channelled into doing what it takes to pass exams rather than acquiring the knowledge needed for professional practice. Segun, a 30-year old student, when responding to the question on how teaching practice delivers the curriculum, stated:

> *"Firstly, in the approach to teaching; a lot of times we learn under duress to an extent. You have to know it [facts] because you can get insulted for not knowing it. Your family can get abused on a ward round, the state of your intelligence quotient can be questioned, your academic background can be brought into question because you don't know an answer to a question. There isn't so much of an encouraging atmosphere for you to want to make mistakes and then be corrected. We are conditioned to get it right in whatever way we can to avoid public embarrassment and disgrace. I think that's the first thing."*

With their minds set on '*getting it right*', when studying, students focus their attention on the things that have been shown to help in passing exams, like "... studying past examination

questions and how to answer them, rather than studying with textbooks". Students also described their assessment through oral examinations as "... *too subjective*", and "... *you can fail your exams just because your lecturer doesn't like your face or the way you are dressed*". Some of them lamented that when it comes to their assessments, they were at the mercy of their examiners: "*It doesn't matter [about] your performance on the day of exams; if they don't like you, you are done*".

Some of the students believed that their assessment process was so heavily weighted, by the academic staff, in favour of the oral examinations, that they had to do everything they could to remain in the staff's good books, and do, strictly, only what they have been instructed to do. They believed that this limited them within the scope and boundaries of their lecturers. Some students went as far as accusing some of their lecturers of deriving a degree of pleasure from seeing students failing their examinations. For example, Jide, a 26-year old student, observed:

> *"... but the attitude of the lecturers; I think their aim is more of finding students that fail. It is very different abroad where they try to impart learning. Here it's oriented towards* [a] *pass and fail mentality. It's more like there's pride in lecturers when they set an exam and students don't pass. They keep telling you, yes, that "... which lecturers would want students to fail?". But at the end of the day it's a joy for most lecturers here that students do not pass, though they deny it. And it breeds the culture of going to school and doing everything just to pass, not learning everything you need to learn. So, all you need to do is ensure that you read or do the things that will help you pass. I am a wide reader; I love to read widely, and I like to think out of the box. But if you try that here you are going to fail. There's this saying in the common parlance here that common things occur commonly. And you restrict your thinking; if it's not malaria, it's meningitis. In general, it frustrates me."*

Another student, Ashinedu, 26 years old, also supported the notion that the way students are instructed and examined led them to strive primarily towards ways to pass exams, rather than striving for the broad knowledge they really need:

> *Respondent:* *The lecturers try as much as they can, to impart knowledge and go at length to try and take you back to the pre-clinical, and link it up to what will help you here. However, the problems with the clinical*

school still remain the constrictive nature and subjective examination methods.

Interviewer: *What do you mean by constrictive and subjective?*

Respondent: *First, the fact that you have to learn in class how to pass, you have to structure yourself on how to pass; not really to read broadly. So, you are constricted to things that you need to pass. Because if you read widely you will still fail.*

Kunle, a 29-year student who claimed he had had a lot of issues with previous exams, echoed this frustration when discussing medical school education, and the quality of the instruction he was receiving:

> *"You have lecturers here who try to teach you well, but medicine is more [a matter] of practicals: and it doesn't help that you need to actually focus more on passing exams than broadening your knowledge."*

A few students however, questioned the efforts of their lecturers in bringing their teaching methods up to speed, and bringing them in line with advancements in modern-day teaching. Anthony, 26, described the teaching methods of some of his lecturers as '*archaic'*, and wondered what, if any, new knowledge these lecturers were imparting to their students.

> *"We are not moving, it's the same way they taught, it's the same way they were teaching internal medicine 10 years ago, is probably the same they are teaching internal medicine now. They have not gotten abreast* [of] *the changes that are taking place in medical education. Let's say for example cardiology; you cannot be teaching cardiology without mentioning procedures like coronary angioplasty, things like percutaneous coronary intervention. Medicine has gone forward. Medicine is not static."*

Some of the students felt that their lecturers were not only far behind the times when it came to methods of instruction, but that they were unaware of being outdated. This made students feel that they were not getting up-to-date information from their lecturers: that they were being taught the same things, in the same way, as students in the past, neither updated nor modified to take into account more recent knowledge and understanding.

> *"I once got a professor's lecture notes that he gave [in] 2008 ... This same professor came to teach us a topic in paediatrics in 2015 and [he] was using the same lecture notes word-for-word, he didn't make any change, no modification. Just teaching the same thing year after year without making any changes, any modification to suit the present-day medicine."*

Dr Chinedun, a senior registrar, who was involved in teaching students at a teaching hospital, further supported this notion of inadequate instruction that leads students to focus more on passing exams. He believed lecturers were forced to teach students the things they needed to pass exams, because the instructional materials needed to teach students properly were either not available or non-functioning:

> *"I think people are just paying attention to "did you or did you not pass exams?" And I think medical education, for somebody preparing to be a doctor, exams are meant to be passed if you have done what you are supposed to do. The goals should be "Do I have enough to be what I am training to be". So, I think too much attention is being paid to "You should know this to pass the exam", rather than equipping the student for a whole [working career]".*

The focus on ways of passing exams may be a direct consequence of the inadequate exposure to practical, hands-on learning experience that students complained of; lecturers tried to compensate for this by teaching the students ways to overcome the deficiencies in their training regime, and still be able to pass their exams. This however, comes across to the students as focussing too much on theoretical teaching, concentrating principally on ways to pass exams. Asked whether this could explain some of the issues they were complaining about, most respondents agreed that it could, but also that it had been part of the culture of the system for so long, that even if adequate, up-to-date training facilities and conditions were to become available, the system would still direct students more towards passing exams than to the acquisition of broad professional knowledge, stressing the point: "... *the goal here is to pass".*

4.2.4 Training facilities

An important theme in this study was the way participants viewed the state of the training facilities in their institutions. While the '*Needs Assessment of Nigerian Public Universities*' report of 2012 (FGN, 2012) clearly revealed the poor state of university infrastructures, Halidu

(2015) equally showed that in the face of inadequate funding of public universities, the bulk of whatever funds are provided goes into the cost of running the institutions, leaving little for the maintenance of the few infrastructures, and virtually nothing for capital development. The healthcare sector has not fared any better (Nwosu, 2000; Ezenolue, 2011; Welcome, 2011). As a result, medical education suffers the ills of underfunding, and infrastructural inadequacy and decay. In this study, only two students interviewed expressed a general satisfaction with the state and quality of their training facilities, describing them as "[…] *great, especially when compared to other schools* [in Nigeria]". For example, Mike, a 25-year old student stated:

> "*I have not been to other medical schools, but from what I have heard from students from other schools our facilities here are top of the range. They [students from other schools] envy us*".

However, most of the complaints by the staff and students in this study were related to issues with training facilities. The frustration of staff with the poor state of the training facilities is illustrated by the following section of an interview with a surgeon:

Interviewer: *Let's talk about medical training facilities. You are a staff [member] of this hospital that trains medical students. Will you say from your experience, what you see in this hospital, the facilities, will you describe them as being fit for purpose?*

Respondent: *No. Categorical no.*

Interviewer: *In what ways are they not?*

Respondent: *From being unavailable to being available and non-functional, to being available, functional and no appropriate persons to operate them and transfer skills to the junior ones coming up.*

The unavailability of training facilities (or the poor state of those available) put a lot of pressure on the teaching and clinical staff, who were obliged to devise ways to deliver what the curriculum recommended for the training of students with whatever facilities were available (and functioning). To make service delivery and teaching better, and for their own comfort, some staff have had to use their own resources to acquire some of the instruments they needed:

> *"I have used my own personal money to buy so many things; you can see a head lamp in that box, the second box is my operating loops because we don't have a functional microscope. These I bought with my own money just to make service delivery better. In fact, I have a case to do tomorrow, and I am going to bring a lot of my instruments to the hospital for me to be able to do the case, 1) so that it will not take too long, and 2) so that I won't suffer too long in doing a case for the hospital. The patient is not going to pay me any money; I just want to have my own comfort."* (Dr Chinedum, a senior registrar).

While it may sound unusual that staff had to provide the instruments that hospitals could not or would not provide for service delivery, many hospital staff corroborated this situation. For example, another clinical staff member, a consultant physician at one of the teaching hospitals in this study, described the training facilities as not fit for training both undergraduate or post-graduate medical students. In order to do their job, some staff had had to buy as many of the instruments as they could afford:

> *"Our facilities are inadequate to train both our undergraduate and postgraduate students. Many of them are not modern facilities, and those that are available are usually not in a good state; it's either they breakdown every time or after breaking down replacing them is a longer term for them to get new ones. By then the students may have moved on to other aspects of their training."*

The survey of students in this study revealed that the way they perceived the quality of their academic training facilities was significantly ($p = 0.016$) associated with the way they viewed the migration of doctors from Nigeria. For example, of those who felt the quality of their academic training facilities was poor, almost two-thirds (62.5%) viewed migration positively; only 2.5% viewed migration negatively. This inverse association appears to suggest that perceiving the training facilities as poor leads to attitudes that favour migration: students feeling they would need an environment with better training facilities to develop their skills any further. Over a third (36.5%) of the students in the study expressed dissatisfaction with the state of their academic training facilities, while almost a third (27.0%) were unhappy with their clinical training facilities (see **Error! Reference source not found.**). One student, Kachi, 27, described his pre-clinical training facilities as "... non-existent", lamenting the over-crowding in practical sessions, lack of opportunity to participate in and complete practical procedures,

and poor instructions and lack of support from staff, among other deficiencies. He described his pre-clinical training experience as the worst part of the medical education he had received, and compared it to "... having no education":

> *"When I look back at my pre-clinical years, I wonder how I made it this far. At some point I almost gave up; it is a miracle that I did not drop out of the medical school then. I guess you absorb the shock, adjust and then get on with whatever you can to move on."*

The feeling of having 'no education', or inadequate training, is one of the main drivers of the desires and aspirations of medical students and young medical graduates to leave Nigeria for developed countries with better training facilities. These facilities could be as basic as the seating in lecture theatres, which some students described as being in a state of disrepair. For example, while speaking of the state of the lecture theatres, Tunde, a 26-year old student, described how departmental seminar rooms built for a different purpose had been converted to ad hoc lecture theatres.

> *"They have not changed the chairs; the boards have not been changed. When I was in pathology and pharmacology, where I received my pathology and pharmacology classes, there were no tables; you just sit down on a plastic chair and you put your note book on your lap to write. We have very few lecture theatres. In the whole of the medical school you will not believe that we have only 3 lecture theatres. In clinical school, they have no lecture theatres. You know the meaning of a lecture theatre; not just lecture rooms, but they are elevated. It's just clear that this was built for lectures. What we do now, we improvise: take a seminar room and say let 400 level medical students use it to have their classes. But that does not make it a lecture theatre."*

The ad hoc nature of such lecture rooms meant facilities were not only inadequate for the delivery of lectures, but that they were also unsuitable for learning, so students suffered the discomfort and disadvantage of an environment that was not conducive to learning. For example, they described how the seats in these lecture halls were either broken, or lacked writing platforms; as a result, some students had to stand for the duration of the lecture, taking notes on notepads placed on their laps:

> *"First of all, the furniture; the seats are either broken or there are no writing platforms, a few of them do not have these (pointing to the seat cushion) so the seats are very*

difficult to sit down on for long, and very uncomfortable. Then some [of the lecture rooms] do not have enough chairs." (Moses, 25-years).

Still another student, on the state of their lecture theatres and seating arrangements:

"Like in O&G, the seminar room was just ... we just had chairs which we sat on, it wasn't good for lectures; we couldn't take notes really. You probably had to put it on your laps to take notes." (Anthony, 24-years).

Some students described many of the conditions they were being subjected to during lectures and classes as worse than those they had experienced during their secondary school education. Speaking on the state of their training facilities, students described how, "... *some of them* [the facilities] *are in a good state, but we are only allowed to observe how they are used.";* other teaching facilities are either inadequate to cater for the number of students, or are poorly maintained.

For students in the clinical classes, however, most of the complaints concerned the lack of access to facilities, as they had to compete with house officers and registrars for the limited access available. In most cases the students lost this contest; as a consequence, they received little or no hands-on clinical experience. Adeola, a 25-year old student, complained of how routine clinical procedures had become difficult for students to access:

"In fact, access to certain facilities are just the preserve of the senior registrars; not even residents. So, even to deliver a placenta by cord control traction is a privilege for a house officer. It's a privilege when you are being allowed to use certain facilities or observe certain procedures ... it's more of bookish, book, book ... and nothing on the practical aspect."

Students completed their medical school training without adequate hands-on clinical exposure, and graduated into the job market feeling inadequately prepared to take on many medical cases on their own. The house officers interviewed in this study claimed they were only able to have proper hands-on clinical experience after they started their internships; as students, they too had had little or no hands-on experience during their training.

The lack of an equipped clinical skills acquisition facility for training students was a common complaint from both staff and students in this study. Students complained of having to learn procedures by practising on living patients; a situation that made it very difficult to have

adequate training. For example, Gloria, a 24-year old student who had had the advantage of a four-week overseas clinical posting, observed that Nigerian clinical students go into their exams with little or no actual clinical experience, or much exposure to many of the routine clinical procedures they would have been able to practise had they been trained at proper skill-acquisition facilities:

> *"In America, when residents are being trained they have what we call a skills lab. A lab they can go and practice procedures on manikins, a kind of visual whereby they can actually do procedures without doing it on real live patients, but they can do it in the lab. In Nigeria, in the school where I am training, we don't have such facilities."*

As they had to learn as they carried out procedures on patients who happened to turn up at the hospital, students not only struggled to carry out such procedures, but they *"... hardly have the chance to make errors and learn from their errors".* As a result, they complained of having to imagine the clinical procedures they read about in clinical textbooks, rather than actually carrying out the procedures.

> *"We are a bit handicapped as regards the practical learning. We are told you can set a line, but we don't have manikins; we have to try our luck on patients that come in and require acute care. We don't have so many things that we need. We don't have probably, a software that teaches us this is how this microbe affects the system; we have to imagine all these things we get from our textbooks, and there are no videos."* (Adeola, 25-year old student).

Echoing this same frustration about the lack of clinical skills training facilities, Esosa, a 30-year old resident doctor, lamented that the only time most students would realise a clinical error had been made would be when a real live case went terribly wrong. They would then have to allow a senior supervising colleague to rectify the mistake, making it hard for them to learn from their own errors, the outcomes of which might be expensive or even fatal:

> *"We have issues with the lack of clinical skills training facilities; outside the practices that we do on patients, we do not have the opportunities to practice on manikins, and make some mistakes and understand the consequences of those mistakes and learn from them. In that area, I will say the training facilities have not met with my aspirations."*

The combination of a lack of skills-acquisition facilities and limited exposure to hands-on clinical training in the training institutions leads directly to what both staff and students

acknowledge causes damage to medical training: improvising in the absence of the necessary resources. As Esosa stated: *"We have adapted to making use of what we have; we improvise a lot".* Although improvising can be a necessary and sometimes life-saving measure, both staff and students agreed it was something they would rather not have to do. As one resident doctor claimed, good clinical standards are gradually, but increasingly, being lost to improvisation.

> *"Medical practice in Africa is still backward. But again, one of our lecturers made us to understand that the WHO standard is that for a medical graduate, the aim is to make him as independent as possible after his house job. So, most times we always think of how we can improvise; like, ok, we don't have this thing, how are you going to improvise? You don't have the normal tonique, I will cut the blood giving set and tie it just to let me get a vein. So, because you are always thinking of how to improvise you are losing some standards."*

Asked whether their existing training facilities met with their aspirations, the consensus among staff and students was that they did not. Some respondents went even further, declaring that the situation was getting worse, as the ageing and deteriorating facilities were neither being properly maintained, nor replaced when necessary. Tolu, a 28-year old house officer doing her one-year internship, claimed:

> *"When we came in we complained that the facilities were less than adequate, and then you find out that your junior ones have even less that what you had. So, in a lot of ways we are having a better experience than our junior colleagues are having."*

Inadequate training facilities, limited clinical exposure during training, and the worsening condition of the facilities which were available were some of the factors students complained made them feel that the training they were receiving was deficient. On graduation, they still felt inadequate as a result of the training they had received, and because they wanted to reach their full potential in their chosen profession, they sought additional ways to train and develop their skills. This led them to consider migrating from Nigeria to countries where they believed they would receive better training.

4.2.5 The medical curriculum

While reviewing and updating the higher education curriculum in Nigeria has been advocated by stakeholders in the sector (Mojar, 2000: Ezenolue, 2011), and the overwhelming majority

(83.9%) of the medical students surveyed (see **Error! Reference source not found.**) acknowledged the relevance of their curriculum to the present-day challenges facing the healthcare system in Nigeria (excellent, 5.7%; very relevant, 28.4%; relevant, 49.8%), the students interviewed in this study indicated low awareness of their present curriculum, or a lack of perceived relevance of the curriculum. This ranged from students having neither seen nor been familiar with the document, to their having seen but not read it. The case of Ashinedu, a 26-year old student, illustrates this disconnect: when asked whether the lecturers followed the curriculum while teaching, her response revealed ignorance of it, or least a lack of knowledge about it:

Respondent: *I don't think so. They just come and teach from their head. I don't think they follow it*

Interviewer: *You don't believe they follow it? Have you read your curriculum?*

Respondent: *I don't believe they follow it. But to be honest, I have not had access to read it myself.*

Most of the students interviewed could not say whether teaching practices followed the curriculum, not having read it. Another student, 25-year old Toni, recited the courses he had taken, from his pre-clinical classes to his final year, but could not remember ever seeing the medical curriculum he was being trained with. He explained: *"When we get to each level of studies we ask our senior colleagues for their notes and the scope to cover for each course".* According to him, it was the way they met the challenges of the system, and "*... it has worked for us so far, so there is no need to change it*".

Although most of the academic staff interviewed claimed that students were usually given a copy of the curriculum on admission to medical school, most of the students contradicted this claim. For example, the class representative of the final year class in one of the institutions claimed that her efforts to get copies of the curriculum had yielded no results:

"As the class representative, things pass through me to get to the class. Because I have not been able to access the curriculum for the class, nobody else in my class has it. Except he or she got it through another route."

The impression students gave is that the system placed little or no emphasis on the curriculum. This was even more marked in the clinical classes, where the students claimed that the bulk of their clinical training in the hospitals came from clinical rounds conducted daily by the non-teaching resident doctors and consultants. These resident doctors, and some of the consultants, are hospital staff, but not university staff. Consequently, what they teach does not necessarily accord with any university curriculum. Dr Adebanbo, a 52-year old surgeon who is also a non-teaching consultant at the hospital, reflected on the disconnect between what the curriculum says, and what the students are taught during clinical training rounds. He explained that because of the nature of the administrative and management setup in the teaching hospital, it was not possible for some of the clinical teaching staff to follow the medical curriculum of the university.

> *"The set up in the teaching hospital is such that we have, while we are supposed to be both teaching-oriented and service-oriented viz-a-viz taking care of patients. But because of the peculiarity of this hospital (I am speaking about this teaching hospital only), you may be employed on one arm and not be employed on the other arm. So ideally, it's the university that should make us teach students, but we just do it even though we are not employed in the university; because, when I do a ward round and I see some new entry students with me or those about to become doctors, I just feel obliged that I should impart something on these people to let them know about the cases, even though I am not in the university. If I was* [on] *the university staff I would have said OK, yeah, I will look more at ensuring that I get the curriculum and channel whatever I am trying to teach them in line with the curriculum."*

This disconnect between what the medical school curriculum says and what students are taught might account for why students paid little attention to the curriculum, preferring to rely on more senior students who had already gone through the system. It might also partly explain the complaint made by some of the students: that the system pushes them to strive more towards passing exams rather than striving to acquire broad medical knowledge. While explaining why he paid little or no attention to the medical curriculum, Akin, a 26-year old student, observed that the system that served their senior colleagues well will also bring them [the junior students] success, so they felt much more comfortable following the advice of these colleagues, rather than relying on the curriculum:

> *"We have senior colleagues that have gone through whatever process we are going to go through, so ideally before we move to any level, we are adequately informed by these our senior colleagues who are our close friends, about what to expect."*

Explaining further why they had to rely on their senior colleagues when there is a document that spells out everything that they need to know, one respondent described the curriculum as being *"... quite big, and we already have some other big textbooks … Nobody really has time to sit down with the prospectus".* This lack of interest in the medical curriculum by students is one of the findings of this study.

4.2.6 Quality of support

This study's survey of students revealed that the way they perceived the quality of support they received from their training institutions was significantly (p = 0.002) associated with the way they viewed the migration of doctors. Although the views of respondents on the migration of doctors were generally positive across the spectrum of perception of the quality of support respondents received from training staff and institutions, a significantly (p = 0.002) higher proportion of those who viewed migration negatively perceived the quality of support received from the institutions as *very good* (33.3%) or *excellent* (16.7%), when compared to those who viewed the migration of doctors positively (*very good*, 14.9%: *excellent*, 5.2%). This seems to suggest that those who were happy with the support they received from their training institutions (*very good*, *excellent*) were much more likely to view doctors migrating from Nigeria negatively, while those who were not happy (*indifferent, bad*) about the support they received from their training institutions were much more likely to view the migration of doctors positively. Overall, almost two-thirds (64.0%) of the students surveyed were happy with the support they were receiving from their institutions (*good* 46%, *very good* 13.3%, *excellent* 4.3%), with only a third (36.0%) feeling unhappy about the support they were receiving (*indifferent* 20.8%, *bad* 15.2%) (see ***Error! Reference source not found.***).

Students in this study usually acknowledged the existence of course advisers at every level of their medical school training, who were there to provide academic and general advice and support. Majority of the students interviewed generally expressed "*satisfaction with the level of support from both the academic and non-academic staff*". Each of the medical schools also had a counselling department. However, most of the students also said that they never actually consulted either their course advisers or the counselling departments, largely because they felt

they *"... could get whatever advice on their courses from senior colleagues rather than going to their course advisers or counsellors"* (Toni, 26-year old student). Others explained that the reason they did not consult their course advisers was because most of these advisers were the older consultants, with whom most students did not enjoy a good relationship (unlike the younger consultants, with whom they appear to be on close terms). Some students described how, whenever they needed advice or counselling, they went to the staff with whom they were familiar, despite the existence of counselling departments and course advisers.

> *"We don't go to the counsellors; I don't think we know there are counsellors. One of our fellow students had a nervous breakdown during our examinations. He had to be taken to the psychiatric unit, and that was when he got some counselling. It is only in situations like that that we seek counselling."* (Timothy, 26).

Other students described "... being scared" of approaching most of their professors and senior consultants *"... because there is too much hierarchy"* in the medical school, and because of the poor rapport between the senior staff and other cadres of staff and students in the hospital.

> *"In a situation where students can't relate freely with their lecturers and trainers, it is difficult to see how they can approach such lecturers for the support such as guidance, career, and general academic counselling that they will need as students."* (Oke, 29-years old house officer).

In an atmosphere such as that described by the students, where they are unable to access the support they need because they are "... scared" of their professors and consultants, their attitude was to perceive the support that they received from the institution in a less than positive way. In one of the medical schools the management went as far as appointing named staff advisers for students who were supposed to serve as 'mentors' for each student. However, students complained that they never heard back from the school or their supposed mentors, leaving them feeling disappointed.

> *"They have done that thing now for about two years; we fill the forms, but we never get a feedback. We put the names of the people that we would like to mentor us in our clinical years, but we never get a feedback; we never get any form of contact from those people or the college"* (David, 26).

Some students cited the failure of this programme as one of the reasons they did not visit the counselling department to access their services. They believed the programme was destined to

fail from its conception, because *"... the staff members are much more concerned about running their private clinics in town than mentoring any student",* and because *"... they just don't care"*. when asked if they ever made any attempts to contact their chosen mentors, most students said they felt there was no need for them to do so.

> *"We filled those forms ages ago; we are about to graduate now. What is the point? When will they mentor us? Now that we are about to graduate? These people really don't care, and we are on our own."* (Ojo, 27-year old student)

Most of the students and house officers interviewed gave the impression that they received little or no support from the system. Career counselling services, for example, were non-existent, and whatever career counselling students received either happened in passing, when a lecturer digressed from regular lectures to offer unsolicited advice, or when the students' union organised career talks for final year students.

> *"Some other times the alumni body, or some Christian or Muslim organisations or missions outside of the school setting, organise a seminar in which there is some career talks. But nothing official. You are basically on your own."* (Kemi, 27).

The perception of poor support from staff members and institution left students feeling that they were on their own; they then turned to senior students and house officers, who, like them, probably did not receive proper support. As indicated by both the survey and the qualitative data, students' perception of poor support from staff and institution influenced their view of the migration of doctors after graduation as a better option than remaining in a system that does not support them.

4.3 The desire to be the best, and to be relevant

Nigerian students and doctors aspired to be the best in their fields, as well as to be relevant in any sphere of life in which they find themselves. Consequently, they felt the need to develop and improve themselves beyond what was available to them through the system in Nigeria. This general perception of the poor state and quality of the training facilities, and the poor quality of medical education in general, was a driver of the aspiration of both students and young medical graduates to migrate to a developed country. Respondents stated that they felt that their training was inadequate, and that to achieve a complete or 'proper' training, one needed to "... go out and develop oneself". Judith, a 28-year old resident doctor, reflected:

> *"You can't really get everything you need in school here. Most of the time you might need to go abroad, that is, to study more to at least broaden your horizon."*

Medical students and young medical graduates felt that they had received the best the system in Nigeria had to offer, but still felt the need to develop themselves further, because they believed that the medical school training in Nigeria was inadequate. A respondent, Kachi, 27, was so convinced of this that his response had not just an air of certainty, but of finality: he had made up his mind, and he intended to leave as soon as he had the chance. Because he had started his preparation early, he felt ready to leave straight after graduation, because he had already passed two parts of the USMLE. He believed he would not be able to achieve what he aspired to achieve professionally if he remained in Nigeria. He stated clearly "*... what I aspire for, we don't have ... here in Nigerian hospitals and medical schools".*

In this study's survey, respondents' aspirations to migrate were significantly (P = 0.034) associated with the way they felt about their experience of studying medicine: almost two-thirds (60.0%) of those who expressed a strongly negative aspiration to migrate claimed they had had an excellent experience studying in their institution, whereas only a third (35.3%) of those who expressed a strongly positive aspiration to migrate felt the same. This suggests that those who felt positive about their experience of studying were less likely to aspire to migrate after graduation, while those who felt their experience was less than positive were much more likely to aspire to migrate after graduation. Although most of the respondents in this study (87.2) described their experience of studying medicine as great (see ***Error! Reference source not found.***), for those who claimed their experiences were not so great (12.8%), this could be an issue. One such student stated, when discussing his experience of medical school education, and what started him thinking of going abroad after graduation:

> *"It was the poor teaching, the poor facilities, and the poor experience that strengthened my resolve to want to do better with myself. To want to go abroad and further my medical education and training."*

Expressing similar sentiments about his experience of medical training in Nigeria, and how it had prepared him for the future, Jude, a 26-year old student, wondered about the standing of Nigerian medical school graduates and residents:

> *"Where you cannot guarantee that we will be able to compete worldwide; because medicine is universal. To be competent, for example, you go to conferences where you meet your mates that you are in the same specialties; like in neurosurgery, they are talking about MRI blah blah blah. But even some of our own residents, I am sure they have not even seen MRI film before. So, we are limited in a way, and my own goal is to be able to compete in whichever specialties I want to go into. To be at par with people at the top of the game. That this is the current thing; and I am involved in it."*

Explaining this desire to further develop and improve ones' professional standing, Dr Ade, a 41-year old senior registrar at one of the teaching hospitals, thought that doctors migrated for more than just financial reasons, explaining that the failure, of medical education and healthcare systems in Nigeria, to meet the aspirations of students meant those students who still held on to their dreams would continue to try to find the fulfilment of their aspirations outside Nigeria, after exploring the system in Nigeria:

> *"Your mind is not here: before people got into medical school they had these aspirations, what they want to be as doctors. They had this thought in their brains of what a doctor should be. Then, by the time they are in medical school they find out that the reality in Nigeria is not what they have been thinking of; and they would have heard, especially in these days of social media and internet, they know what obtains in other climes. So, they want to go to where things actually work. That's just it. In the past people migrated in the '80s because of genuine financial reasons, but these days, people migrate not only for financial reasons, but also socio-economic reasons and the fulfilment of aspirations."*

This feeling of the inadequacy of Nigerian medical training was made worse by some professors who, having experienced practice in the West, told stories of what it was like to practise medicine in developed countries. While it was probably not their intention, selective descriptions of how great their experience of studying or practising medicine abroad was tends to confirm the inadequacy of the training students were presently receiving in Nigeria, and this "*... whets the appetite of students for migration*". Many students and residents came out of such classes with the desire built into them to travel and experience what they had been told about. While discussing the migration abroad of graduates of his medical school, to train or practise, Tunde, a 26-year old house officer observed:

> *"In medical school, we were told "this magnetic resonance imaging this and that … that this is so, so and so edition. If you go to the US, they have the modern ones that can do better, ... there are so many things that you can carry out with this machine". So, with that level of sophistication; if you really want to do or know the job very well, you will be tempted to go where they have these better facilities."*

Realising that they were not likely to have access to such state-of-the-art medical facilities in Nigeria, ambitious medical students started channelling their time and resources into ways of getting to where they could have access to these modern amenities. Omorodion, 27, further adduced to this, when responding to a question on the reasons he and his friends had for aspiring to migrate abroad at some point after graduation:

> *"People have personal reasons. Some people just believe that you can only make it out there. Of course, in training you get to meet and hear stories from people that have been out there; sometimes our lecturers have gone out for one training or the other and have come back and some of the things they tell you may just light a spark in you that wants you to go out there and experience it too."*

For students and young medical interns, who already felt inadequate about their training and wanted to develop themselves further, hearing such stories about the medical advances and medical practices in developed countries served as a confirmation of the belief that they needed to go to a developed country to have access to these facilities, and to practise medicine in the way they desire. Over the years of their training in medical school in Nigeria, students and young medical graduates heard lots of these amazing stories about medical training and practices abroad from the lecturers, and many of these students wanted to experience this standard of medical training and practice too.

The way a society treats doctors trained in different parts of the world, especially the value that society places on foreign qualifications compared to local qualifications, is a clear indication and pointer to medical students and young graduates of where their energy and efforts should be channelled in order meet their aspirations. As stated earlier, Nigerian medical students and young doctors want to be the best, they want to be relevant wherever they may find themselves. Having seen that Nigerian society respects foreign qualifications much more than local ones, Nigerian medical students and young medical graduates wanted to obtain these foreign qualifications so that they would also be given the respect and appreciation given to the best.

Anthony, a 24-year old student, after giving his main reasons for desiring to leave Nigeria for the US for his post-graduate studies, quipped:

> *"And besides, certificates gotten from foreign universities are much more respected than our own here. So, that is why you see, when you get a residency training programme in the US for instance, or in the UK, you are perceived to be better trained than a person who is trained in one of our backyard universities."*

Consequently, because medical students and medical graduates want to be accorded respect, those who have the wherewithal will invest their time and resources to acquire foreign degrees. Adeola, a 25-year old student, alluded to this while speaking on the migration of doctors to practise or train abroad:

> *"Apart from the financial aspects of it, and the better training, there is the social aspect of it; that respect that they earn when they come back from western universities. It is so obvious that it makes you feel you are second best because you don't have a foreign degree."*

A resident doctor, Dr Akiolu, lamented how this preference for foreign trained doctors affects the recruitment of doctors into the residency training program at his teaching hospital, while discussing the difficulty doctors encounter in finding jobs and training places in Nigeria:

Respondent: *In fact, currently, like last year MDCN* (Medical and Dental Council of Nigeria) *conducted examination for about four hundred and seventy something medical doctors, foreign trained doctors, who have studied abroad, and then they came back to Nigeria for their provisional licence; majority of them were absorbed into the hospitals instead of doctors trained in Nigeria.*

Interviewer: *Why was it so?*

Respondent: *I don't know. Maybe, because they place so much premium on the person training at St Kitts, in Ukraine, in Malaysia, in Caribbean Island, that's what I can tell you. Like in University of Benin teaching hospital for instance, of the seventy-seven of them* [doctors] *that were absorbed last year, more than thirty of them were foreign trained. And twenty-five, just twenty-five from the school* [University of Benin].

Experiencing or hearing of this kind of blatant preference for foreign certificates sends a signal to students and young medical graduates that their training and certificates are not only deficient, but that they will be left out in the scheme of things if all they have are local training and certificates. As Kid (2001; 11) said, we shape our culture and perpetuate it in our day-to-day lives with the way we interact with others; the ambitious students and medical graduates witnessing instances of such blatant preference for foreign medical qualifications take their cue from this, and start preparing to migrate, in order to achieve foreign training and certificates.

4.4 Experiences of resident doctors

Most students in this study described their experience of studying medicine as either *good* (41.7%), *very good* (33,2%) or *excellent* (12.3%) (***Error! Reference source not found.*** It is therefore expected that these students would look up to their lecturers and their senior colleagues as role models. The dream of most (64.5%) of these medical students is to train as a specialist, and then be appointed as a consultant. This requires going through a residency training program at a teaching hospital. In discussing their post-graduation career plans, most of the students surveyed expressed their interest to further their education and to become either consultants (64.5%) or academics (4.3%) (*Appendix 16: Breakdown of respondents' post-graduation career plans* While this study's survey found almost equal percentages of medical students wishing to pursue their post-graduate residency training program abroad (33.2%) and those who wished to do same in Nigeria (31.3%), most of the study's respondents also expressed serious concerns about the training programs in Nigeria. They pointed to the general situation in the country, their perception of the quality of Nigerian medical education as poor, and especially, the experiences of doctors in the residency training programs in Nigeria, as reasons they would rather embark on their post-graduate training outside the country.

Students described what they had seen resident doctors experience in their post-graduate medical education training as 'uninspiring'. For example, when explaining the major revelation that led him to make up his mind to leave Nigeria after graduating from medical school, Jude, a 26-year old student who had completed the first two parts of the US medical qualifying exams (USMLE) stated:

> *"The idea has been in my mind since I got into medical school, but when it really became the only option for me was when I started my clinical training and I saw the way doctors were being trained here in Nigeria, and I saw the state of our facilities and I saw my future, that if I remain in Nigeria the future I will have. It was something I was not looking forward to at that point, especially when I heard that you can write* [to] *the USMLE from school while still a student. At that point going abroad to practice was just my only option."*

Students see their professional future apparent in their senior colleagues, especially the resident doctors who are training to be specialists: ideally, what they see should inspire them to strive to achieve the same prospects, and to return to the same institutions for their post-graduate medical education. However, when what they see appears to be 'uninspiring ', as some students claimed, then they are likely to look elsewhere to pursue their aspirations for future training, especially when they can point to how the training and experiences of resident doctors elsewhere appears to be so different, and so much better, than what they have seen in Nigeria.

4.4.1 Poor rapport between consultants and resident doctors

Students complained of the poor rapport between consultants and resident doctors. They described what they observed during their medical school training as an atmosphere of fear, with too much of a hierarchy, and lower cadres of staff and students at the mercy of professors and senior consultants:

> *"Everything starts from the medical school days; as a medical student, you see your resident is already scared of the consultants. You can't be doing anyhow. The fear is already there, that even some basic questions you need to ask, you just can't ask. I don't know if it's an African thing or a Nigerian thing, a UCH* [University College Hospital, Ibadan] *thing."* Timothy, 27.

Fear of professors and senior consultants was a frequent complaint of students, house officers, registrars, and even some senior registrars, who described how the presence of their professors and consultants created a tense atmosphere that they all wished to avoid: a situation where registrars were afraid to risk making mistakes, for fear of being embarrassed in the presence of students and patients, and where students were afraid to talk or ask questions. Osas, a 26-year old student, commented that *"… people are scared of the consultants, people don't relate with*

them freely. When the consultants come, everybody will be scared; it's like a god is coming, everybody is scared of making mistakes so that they will not embarrass them in front of the patients".

This fear of consultants partly accounts for why students refuse to make use of opportunities to consult their course advisers, preferring to seek advice from senior fellow students or younger lecturers, who they appeared to be closer to. Tolu, 28, blamed this atmosphere of fear on the lack of a good rapport between the consultants on the one hand and the resident doctors, house officers and students on the other:

> *"We know there's hierarchy; there's the consultant, senior registrars, the registrars, then the house officers. But the rapport between them is lacking."*

Contrasting this tense relationship between consultants and other clinical staff and students with what he experienced during a four-week clinical placement in the UK, during an overseas exchange and clinical-posting program, Tolu explained his surprise at finding a much more friendly and cordial relationship between consultants and other cadres of clinical staff in the UK hospital:

> *"When I was there I noticed that after the ward rounds the team will sit together, have coffee, they talk, they kind of release the tension. Nobody is scared; even though the respect is there. Yes, you give respect to the consultants, but people are not tensed up, people are free to express their mind. But the training in Nigeria; people are scared of the consultants."*

Asked how his experience of clinical training exposure in the UK and Nigeria has influenced his perspective on medical school training, he replied *"I have always known there is a different and better way of medical training, and my experience has confirmed it; now there is no point limiting myself"*. He explained that he had made up his mind, and would try to leave Nigeria as soon as possible for his post-graduate training.

Students and house officers also described how consultants disrespect resident doctors during clinical ward rounds, even in the presence of students, nurses, patients and sometimes, patients' relatives. One student put it succinctly:

> *"It starts with the consultants talking down on the senior registrars; the senior registrars then talk down on registrars, who now talk down on house officers and students when they have the chance"* (Tunde, 26).

The atmosphere described by students, house officers and resident doctors does not make for a good learning environment that would encourage students and house officers to want to return to the medical schools for their post-graduate training. Dr Ade, a 27-year old house officer, alluded to how discouraging this could be when describing the experience of his internship:

> *"I don't know if it has to do with old school mentality of our consultants and professors, but the older colleagues are not really very nice … in imparting knowledge; they harass residents. Residents are not encouraged. You see, I will compare it with medical training in the UK because I have been to the UK before for my elective posting. It is hard to see myself returning to this system for my residency training."*

Similarly, Dr. Kadiri, a 34-year old senior registrar, reflected that *"… talking down on happens in the presence of junior colleagues, in the presence of patients, in the presence of nurses, even in the presence of relations of patients".*

Residents described how the *"... humiliating experience deals ones' ego such a blow that for days you feel like quitting and not returning to training afterwards".* Students recalled trying to avoid engaging such residents in *"... eye-to-eye contact afterwards"*, just so they don't add to their misery, and *"... feeling pity for residents"* and *"... wishing never to be in their position ever".* Students described the fear they felt about being *"... picked on"* for similar treatment, and how, to avoid being victims of similar treatment, they stayed quiet and were afraid to ask questions, even when they knew they should have been asking questions. Then, when the consultants were not around, *"... senior residents turn on resident doctors under them for similar treatment"*; residents then did same thing to house officers and students when they had the chance.

Sometimes it could even come to physical assault. One such case was reported by a senior registrar:

> *"I have registrars working under me, and then we have a consultant over us. This particular incident happened between the registrar and the consultant. We were attending to a patient in the theatre, but it was like at that particular moment I was trying to do something that took my attention away briefly. Later the registrar told me that the consultant slapped him and said "Ah, don't you know you are not supposed to do that". I said I didn't know such happened; and asked, "Did that really happen?" He*

now said; "Let's ask one of the anaesthetic technicians that saw what happened". So, we called one of them and that one said "Yes, something like that happened". Dr Ado, Senior Registrar

Witnessing disrespect, insult, or abuse as part of an atmosphere of fear during training cannot be the kind of experience that inspires students to want to pursue post-graduate medical training in Nigeria. That kind of experience will, in all likelihood, strengthen the resolve of students and young medical doctors who already aspire to migrate abroad for their post-graduate medical training.

4.4.2 Heavy workload

Students and house officers also pointed to the heavy workload of resident doctors as a factor that discourages them. They complained that the resident doctors did most of the work for the consultants, yet did not get any appreciation:

"Registrars do all the dirty jobs: they do the clinical and surgical work, even the teaching of medical students. The consultants just walk in once or twice a week, shout out corrections and sometimes insults, then disappear to their private clinics to see their rich patients, leaving the residents to carry on with the work." (Bunmi, 26).

To meet the demands of their training, residents spent a lot of their time in the hospital rendering a variety of services. In most cases, this left them with little time to prepare for exams, putting them at a disadvantage when the exams arrive. Dr Tobai, a senior resident doctor, described the effects of this heavy hospital workload in the hospital on residents' preparation for exams:

"When it comes to skills, residents of this hospital are very good, because we do a lot of service to patients. But when it now comes to exams, you find out that a lot of residents' struggle: the reason being that they don't have time to study, and for them to marry theory with the skills they have been acquiring. And when they go for exams it shows, as residents from this hospital struggle, particularly with the theory parts of these exams."

Consequently, because these exams determine the progress residents make in their residency training, lacking sufficient time and space to prepare for the examinations because of the heavy

workload they carry, doing work they felt the consultants were supposed (and were being paid) to do, medical students regarded the place of the resident doctors as "... unenviable" and "... uninspiring". Seeing residents struggle to pass exam after exam, because they spent most of their time rendering services in the hospital, showed discerning students what they were likely to go through should they choose to return to the system for their post-graduate training. The students wanted to develop their skills further, because they want to be the best they can be professionally, and to be relevant wherever they find themselves. However, what they have seen in the medical education system in Nigeria is not what they look forward to experiencing.

4.5 Frequent industrial action

Another problem that medical education is grappling with in Nigeria is the very frequent industrial action taken by unions, in the universities and in the healthcare system. Emewu (2013) estimates that the Nigerian university education system lost about 3 years to frequent industrial action over a period of 14 years. The effects of these industrial action stoppages are worse for medical students who, under normal circumstances, spend a minimum of six years in training. As medical education is jointly undertaken between the university on the one hand, and the teaching hospital on the other, any industrial action called by the university affects the medical students in the same way as any industrial action called by the hospital. This makes medical students much more susceptible to the effects of industrial action than any other group of students. Illustrating how these incessant strikes by both lecturers and doctors affected the quality of medical education, Anthony, a 24-year old student lamented:

> *"For a course that should last for six years, I ended up spending eight years without failing an exam or repeating a class. There is no university in Nigeria where students graduate in record time. Most of the students spend more than 7 years* [training] *in Nigeria.*

Explaining the reason why these industrial actions are so frustrating for medical students, one of the students spoke of how he panics any time he hears of unions in the universities (the education sector) or hospitals (the healthcare sector) calling for industrial action, because of the way in which his term in medical school has been prolonged.

> *"The reasons for this is strike actions: well, NMA* (Nigerian Medical Association) *will go on strike, ARD* (Association of Resident Doctors) *will go on strike, ASUU* (Academic Staff Union of Universities) *will go on strike, even sometimes MDCAN*

> (Medical and Dental Consultants' Association of Nigeria) *too will go on strike. And once they go on strike the clinical posting of medical students is put on hold. When they call off the strikes, you must repeat those postings, because of the NUC* (National Universities Commission) *policy that students must have at least a minimum of 8 weeks continuous posting."*

Every time there is an interruption of clinical posting because of these strikes, medical students lose not only time; they often have to repeat a clinical posting, as required by the regulations. Good clinical skills are also lost, due to the interruptions to continuous hands-on training. Dr Adebanbo, a 52-year old surgeon, explained how frequent industrial action by doctors affected the clinical training of medical students:

> *"The incessant strikes in the health sector in Nigeria is affecting clinical competence of our graduates. Like if you go presently to the wards of this hospital you will find out that they are virtually empty. And they are empty because we are just returning from* [a] *strike; throughout this year we have not actually worked, because it's from one strike to the other. By the time the strike is resolved we are going again for another one. So, because of that students are not exposed to proper clinical orientation. Many of them before they even write their final exams they will tell you they have not done things like simple rectal examinations, not to talk of the way they set lines or suturing."*

He believed that these strikes put additional pressure on clinical staff, as it usually meant repeating some clinical procedures, just so they could bring students up to the minimum training standard, and to appease their consciences as trainers of students who are going to be dealing with human lives. He went on to describe how, rather than spending their time teaching the students clinical skills, some doctors spent it looking for other sources of income, as a result of strikes occasioned by poor remuneration of doctors:

> *"Part of the things causing our strikes are things that have to do with staff welfare, as in terms of remuneration and others. So, doctors find themselves being distracted. Many of them look for other sources of income, and because of that they lose more time; the time that they ought to use to train medical students they spend it for sourcing for extra funds for themselves."*

Despite the challenges posed by these interruptions to their training, students still passed their exams. However, this might have been at the expense of proper standards, as students admitted that most of them had only had limited exposure to the clinical procedures they were supposed to have observed and practised. Bola, a 25-year old student, gave further evidence of the effects of strikes on the quality of training she was receiving, explaining how she passed her exams despite having received very limited clinical exposure due to frequent industrial action:

> *"Now, I just finished from an exam in obstetrics and gynaecology and more than half of the time we were on strike. During the clinical posting my group was at the brunt of it; both times for junior and senior postings there was one strike or the other, so I did not really get that much experience. But I still wrote the exam and passed. So, you may have theoretical knowledge because you read and you went for lectures and attended classes and all that, but the practical things, because of the strikes we don't really get to be into the whole thing."*

Bola's story highlights why some of the students said that medical education was too theoretical, pushing them to strive to pass examinations rather than to acquire broad clinical knowledge. It also shows why some teaching staff may have decided to focus their attention on teaching students how to pass exams, as some students have alleged. Either way, the quality of the training students received suffered as a result of frequent industrial action within the system.

In addition to affecting the quality and quantity of clinical exposure and medical education in general, incessant industrial action also serves as a 'push factor' for migration. Kemi, a 26-year old student, saw the strikes as a "... *major factor*" in inspiring her thoughts of migration post-graduation:

> *"I don't think I want to be here if something as little as an internship that should be 12 uninterrupted months gets interrupted, and you start getting extensions. Not to talk of how long they spent in school; they spent 8 years. I know this is my seventh, seven and half years, and I have not lost a year* [to failing an exam and repeating a year].

Both students and their parents want to avoid unnecessary prolongation of the years of study in medical school. The effects of the incessant strikes, by both doctors and lecturers in Nigeria, reduce the quality of education in Nigerian medical schools. It has also led many parents who are able to afford it to send their children to study in countries other than Nigeria, where the

educational systems are more stable. Students and young medical graduates who have experienced these strikes, either as students or practising doctors, would want to avoid experiencing them again.

4.6 Conclusion

Medical education, like other forms of higher education in Nigeria, faces a lot of challenges. The perception of a declining standard in medical training is a major issue for Nigerian medical students and graduates, who dream of, and aspire to be, among the best in their profession. The new economics of labour migration (NELM) theory points to failures in the system, like the structural dysfunction in the Nigerian medical education system, as a reason families or households engage in international migration; they want to insure their members against failures in the system (Massey et al. 1993). With modern technology and the internet, medical students and young graduates, and their families, see and hear about, and have sometimes experienced, the joys of high-quality training in well-equipped facilities in other parts of the world, where medical education and medical practice enjoy the benefit of being taken seriously. They have also heard from those who have had the chance to practise abroad about its joys and thrills. By selectively recounting their experiences abroad, this group of people help to propagate and shape a culture that encourages the migration of students after graduation (Kid, 2001). The inability to halt the decline in the quality of medical training and practice in Nigeria, therefore, leaves many medical students and graduates feeling the inadequacies of their training. In most cases, medical students and young graduates have arrived at the conclusion that the system in Nigeria cannot help them develop into who they want to be; the alternative is to leave the country, and go to where they believe they can achieve their dreams. So, a dysfunctional medical education system in Nigeria inadvertently feeds the desires and aspirations of medical students and young graduates to migrate to countries where they can achieve their dreams after graduation (NELM).

CHAPTER 5

PREPARING TO LEAVE

"It is quite serious; people have made serious plans. Everybody is exchanging their own ideas of when and what overseas examinations they want to write" (Student).

5.1 Introduction

In the previous chapter, I described how the dysfunctional medical education system in Nigeria causes medical students and young medical graduates to feel inadequate, in both training and practice, and how this perception leads them to seek further training and practice in high-income economies. Assessing the way Nigerian medical students view migration, in order to practise in other countries forms an important component of an assessment of the 'culture of migration' in Nigerian medical training institutions. This assessment should also include a consideration of their aspirations to migrate after graduation, and how they plan to achieve those aspirations. The present chapter describes the way international migration of doctors was viewed by students in the institutions surveyed, as well as their aspirations to migrate after graduation. This chapter uses a combination of data from the survey of the schools, interviews and records of the institutions to describe the views of respondents on the migration of doctors from Nigeria, and how these views affected their aspirations to migrate. The chapter begins with a look at Nigerian medical students and international migration, then goes on to describe their views on the international migration of doctors from Nigeria; the next section discusses the aspirations of medical students to migrate after graduation, and the factors that influence these aspirations; as well as the aspirations of house officers and resident doctors to migrate. In the last section of the chapter, I discuss the seriousness of the preparations medical students and young medical graduates were making towards leaving Nigeria.

5.2 Nigerian medical students and migration

Existing literature suggest that many of the factors significantly associated with migration from a 'source' country like Nigeria to 'recipient' countries in the West appear to be present in Nigerian medical schools. For example, Hagopian et al. (2005), in their study, implicated a 'culture of medical migration' in Nigerian medical schools as one of the causes of migration, while Ihekweazu et al. (2005), in their study, found that, ten years after their graduation, 40% of three consecutive graduating classes from a Nigerian medical school had emigrated. Similarly, in the study of Tankwanchi et al. (2013), the analysis of the 2011 AMA physician Masterfile found a 50% increase in the proportion of Nigerian physicians among SSA medical school graduates practising in the US, comprising graduates from eighteen Nigerian medical schools; seven of these eighteen schools ranked among the top 20 contributing medical schools from SSA. As shown in various studies on international migration (Massey et al. (1994); Kandel and Massey, 2002; Horváth, 2008), the closer the migration experience is to an

individual in terms of relationships, the more pro-migration their behaviour, and the more likely their aspirations to migrate. Consequently, attitudes of students and staff of Nigerian medical schools involved in international migration are expected to reflect their relationships with the migration experience.

The findings from this study indeed support the existence of factors that are characteristic of a culture of migration in the medical schools studied. 211 out of a total 580 final year students participated in the first part of this study, and returned the survey questionnaire. They were aged between 20 and 45, with a median age of 24 (interquartile range 23 to 25). 61.6% (130) of respondents were males, and 38.4% (81) were females; almost all were single (97.2%) and Christian (93.8%), and described themselves as coming from an urban background (78.2%) (See *Appendix 14: Summary of key survey*). Nearly two-thirds of respondents (60.7%) claimed that their desire to save lives was the main reason they chose to study medicine, and most of them described their experience of studying medicine as either *good* (41.7%), *very good* (33,2%) or *excellent* (12.3%).

Table 12: Summary table by institutions

	All	**UI**	**UNIBEN**	**UNIJOS**	**UNN**
Personal migration history	16.6% positive	25.0% positive	14.8% positive	12.7% positive	14.0% positive
Family migration history	74.4% positive	86.5% positive	63.0% positive	81.8% positive	66.0% positive
Fam. practised abroad*	41.7% positive	63.5% positive	31.5% positive	38.2% positive	34.0% positive
Views on migration	63.5% positive	73.1% positive	64.8% positive	72.7% positive	42.0% positive
Aspiration to migrate	41.2% positive	61.5% positive	37.0% positive	38.2% positive	28.0% positive
Plan post-graduation	42.2% abroad	53.8% abroad	38.9% abroad	45.5% abroad	30.0% abroad

***** - Family member practised medicine abroad

While only 16.6% of respondents had personal experience of travelling abroad, nearly three-quarters (74.4%) had a positive family migration history (*Table 12: Summary table by institutions*), that involved either a nuclear family member (22.3%), an extended family member (25.1%), a family friend or colleague (6.2%), or a neighbour (15.6%) (See *Appendix 14: Summary of key survey*). However, less than half (41.7%) of these family members, while living abroad, had practised or were currently practising medicine. An overwhelming majority (84.8%) of respondents claimed that their family member practising or living abroad had no

influence in their choice or decision to study medicine (more on the family migration history of respondents in the next chapter where I discuss the family and its role in the support of migration). Respondents' aspiration to migrate after graduation is discussed in the section (*section 5.4*) that follows discussions of respondents' views on international migration of doctors.

5.3 Views on migration

The attitudes of respondents in the schools surveyed showed a clear pro-migration trend. Approximately two-thirds (63.5%) had a positive view on international migration of doctors (*Table 12: Summary table by institutions*); with over half (55.0%) viewing migration of doctors positively, and 8.5% having *strongly positive views on migration of doctors* (*Appendix 14: Summary of key survey findings*). In contrast, only a small minority of respondents (5.7%) viewed doctors migrating abroad negatively, with 30.8% remaining indifferent (neutral) in their views (respondents' views on migration of doctors, and aspirations to migrate after graduation, were measured on a summated five-point Likert response format to a group of questions or statements, as explained in Section 3.4). Across the medical schools surveyed, the views of respondents on international migration of doctors were predominantly positive in all but one; the University of Nigeria (UNN), where only 42.0% of the students surveyed viewed the international migration of doctors positively.

Respondents' views on migration of doctors were statistically significantly associated with three main variables: religion (P = 0.005), perception of the quality of academic training facilities (P = 0.016), and perception of the quality of support from the training institution (P = 0.002). The last two of these variables (respondents' perception of the quality of academic training facilities, and respondents' perception of the quality of support from the training institutions) were dealt with separately in the previous chapter where I discussed medical education in Nigeria from the perspectives of the respondents (*section 4.2*). In particular, the data showed that respondents who perceived the quality of their academic training facilities as poor or inadequate, and who were not happy with the quality of support they received from their training institutions, generally had a much more positive view on the international migration of doctors; whereas those respondents who felt the quality of their academic training facilities were good, and were happy with the support they received from their training institutions, had a negative view on the international migration of doctors.

Additionally, the religion of respondents was significantly associated with the way in which they viewed doctors migrating abroad: about two-thirds (64.1%) of respondents who claimed Christianity as their religion viewed migration positively, compared to just over half (54.5%) of those who claimed their religion was Islam. This seems to suggest that being a Christian makes a Nigerian medical student much more likely to have a positive view on the migration of doctors from Nigeria. In this study 93.8% of survey participants were Christians, while 5.2% were Muslims; only one student claimed, 'African traditional religious practice' as his religion, and one other claimed not to have a religion (*Appendix 14: Summary survey statistics*). As described in the methodological approach to this study (*Section 3.3*), Nigeria is split along religious lines into a predominantly Christian south and a predominantly Muslim north. Three of the four medical schools in this study's survey are from the southern part of Nigeria; consequently, most of the participants (93.8%) in the study were Christian. This makes it difficult to validly interpret the effects of respondents' religion on their views or attitudes towards doctors' migration. However, the Nigerian medical schools listed amongst the top ten suppliers of graduates to the US from Sub-Saharan Africa (SSA) (Hagopian et al. 2005; Tankwanchi et al. 2013) are all similarly from the southern part of the country, which as noted above, is predominantly Christian. Though the survey results show a statistically significant association between respondents' religion and their views on the migration of doctors, the views expressed during interviews did not reflect this, suggesting that the association is artefactual: all the interview participants clearly stated that their views on the migration of doctors were not affected in any way by their religion, religious beliefs or religious practices. Asked specifically about the role played by their religion (or their religious beliefs and practices) in the way they viewed migration of doctors from Nigeria, the overwhelming majority responded "... none": a few expressed surprise at the question, shooting back, *"What has religion got to do with it?".* Others frankly stated that it does not matter what your religion is*, "... the reality is what it is*", and that their views just reflected the reality of what they saw and experienced. It is therefore important at this point, to use the qualitative data to explain some of the reasons this study's respondents gave for their views on the international migration of doctors from Nigeria.

5.3.1 Dissatisfaction with the general situation in Nigeria

There are many reasons why people migrate from their own country. Even among people of the same profession, individuals have different reasons for migrating. The reasons why

healthcare professionals migrate have been well documented in the literature, and have been described in terms of 'push' and 'pull' factors driving migration (see *Appendix 1: Reasons for migration.*); most of these factors are work related. For students however, not being in the labour market yet, the reasons for aspiring to migrate were quite different, even though they see and hear about working conditions, and all the other 'push' and 'pull' factors. However, students see their lives and their future through the lens of the experiences of their senior colleagues who are already working. And for the most part, what they see does not inspire them. One student described how the experiences of doctors and how they are trained in Nigeria convinced him that going abroad was the only way forward:

> *"We have seen how the system here works: the way resident doctors are trained, the way they are treated, the lack of proper training and working facilities, the strikes because of poor pay, and the fact that you don't even know when you will graduate from your training. Who wants to go through all that, especially when you know with similar efforts you can get a better deal outside?"*

Throughout the interviews with students and house officers, this expression of worry was a common feature. They were not satisfied with the system in which they were being trained, and they worried about the system they were about to graduate into. And they were not alone in this worry. The parents in this study described how they felt the general socio-economic situation in Nigeria was affecting the decision of professionals to leave the country to fulfil their professional and social desires. They blamed socio-economic realities for the uncertain future their children were about to graduate into. Explaining this, one parent stated:

> *"The socio-economic situation in Nigeria is very difficult. And this is affecting every aspect of our lives. When you struggle so much to achieve so little here, and you see your colleagues who have migrated achieve a lot because they in a country with better economic outlook, it plays on your mind, especially, when you know you can also move there to practise and achieve like your colleagues who have gone before you. The environment in Nigeria is not encouraging."*

Another parent, while explaining his support for the desire of his son to migrate after graduation, also pointed at the socio-economic situation in Nigeria as the major factor his son was preparing to leave the country:

> *"… well, you cannot insulate the medical schools from what is happening in the university, from what is happening in the country. It is what is happening in the country that is also affecting that sector."*

He went on to describe how a lack of jobs, corruption, poor infrastructures, and insecurity all contributed to a harsh socio-economic situation in Nigeria. Parents not only saw what was happening in society, and heard the complaints of those working, they also heard their children's worries; how what the children see around them does not inspire them to want to remain in the country after graduation.

Students and house officers described their dissatisfaction with the general situation in Nigeria, and how the frustration they felt about this situation pushed them not only to consider, but to start planning and preparing to leave Nigeria as soon as they graduated.

> *"Many people are working but are not satisfied in Nigeria. Many people, if they have the opportunity, they will go to where they will work better, they will earn better, they will have better security and their level of living will be better off. That's the situation."* (Ojo, 27-year old student).

This dissatisfaction with the general situation in the country is a major factor leading to the migration of medical graduates from Nigeria. Speaking on why doctors migrate from the country, Kemi, a 27-year old student, claimed "*... it is the deficiencies here that is pushing people out"* of the country, listing similar problems, such as lack of employment opportunities for graduates, security challenges, corruption and nepotism. Others complained of the difficult and inadequate working conditions that doctors face as among the reasons they feel dissatisfied with the situation in Nigeria, and so wanted to leave for any country with a better and more conducive working environment.

> *"People give … saying the healthcare system here is poor and they don't like it. While some also say there's better income, better welfare packages and conditions of work for doctors abroad."* (Osun, a 28-year old student).

Despite not having lived or worked abroad themselves, most respondents believed working and general conditions were better there. So, when they saw or encountered challenging situations, they quickly made a comparison with what they believed obtains overseas, and soon came to the conclusion that they would be better off if they were living and working abroad.

In most societies doctors are regarded as being in the middle socio-economic class. As leaders in the healthcare sector, they are seen as having economic status above that of average citizens. In Nigeria, doctors are seen and regarded in a similar way. A lot of families regard an admission

to study medicine as a pathway out of poverty to economic stability and improved social standing in the community. Parents guide their children to study medicine, not only for the love of the profession, but also for the economic and financial stability that comes with it (*NELM*). However, according to some of this study's respondents, "... *the situation on* [the] *ground is changing: increasingly, doctors are finding it difficult to get jobs, despite the continuing complaint of a dearth of doctors to man our hospitals and healthcare institutions*". When they do find jobs, their joy is met with the uncomfortable realities of the situation, leading to staff complaints and dissatisfaction:

> *"We hear doctors complain that their working conditions are not enabling; the salaries, the remuneration is very terrible, and emm, even the training. Makes you wonder if you are even in the right profession."* (Ken, 27-year old student).

Hearing doctors complain about their working conditions sowed the seed of the fear of their professional future in the minds of students, who then started looking and planning for ways to avoid such an unfavourable career fate. Acknowledging the declining socio-economic status of doctors in Nigeria, Professor Akatubi, a consultant physician, explained that the poor remuneration of doctors in the country contributes to the general dissatisfaction with the situation in Nigeria as a whole.

> *"The social status of doctors in Nigeria over the years has been declining compared to how it used to be, or how it is supposed to be. I think it is more of a financial thing because the Nigerian doctor is not well remunerated."*

A parent whose son had passed the first two parts of the USMLE agreed with Professor Akatubi about the declining economic status of Nigerian doctors, and how it affects the decision of young doctors (and those who were still students, like his son) to migrate after graduation. But he also believed that it was more than just the poor remuneration; he believed it was also partly because doctors do not feel professionally fulfilled working with such inadequate facilities:

> *I think it is just the socio-economic environment here in Nigeria. For some time now, the economic fortunes of Nigeria have been dwindling. Our young professionals have been migrating abroad; medicine is the worst hit because upon graduation they are not fulfilled here as it is expected of them. So, you now find them going abroad. Many of them also complain that, apart from this, they don't have sufficient facilities to work; equipment are not there, and so many things that they would need to pursue their profession are just not in existence. So many of them are eager to go abroad and*

practise. For those of them that believe that they have the certificate or the ticket or what it will take for them to leave this country, nobody can hold them. And that's the situation we find ourselves [in].

Discussing the subject of why young medical doctors are leaving Nigeria, Dr Esosa, a 30-year old resident doctor, talked about the frustrations students feel when they graduate and cannot find jobs, describing how the situation leads to a culture of migration that pushes them to decide to migrate abroad in search of professional fulfilment:

"I described it as a culture of migration because you find people graduate and they don't have jobs. Those that don't have jobs, their standard of life is not as high as it is supposed to be. So, if they think that they can find the opportunity to go elsewhere, where they can make better ends, they will move. And that's the situation in Nigeria today. Where are the jobs? We are talking about the labour market now. Where are the jobs?"

While Nigerians hear every day about the dearth of doctors to serve their communities, and how governments at various levels are doing everything to make sure we have enough doctors and healthcare personnel to improve healthcare in Nigeria, Nigerian medical students hear how those who have graduated are finding it difficult, in Nigeria, to secure jobs as doctors. Echoing this fear of lack of employment opportunities for medical graduates, student after student lamented the situation they were about to graduate into. Omorodion, 27, observed:

"… nobody wants to stay in a country where you spend 8 years being trained to have MBBS [medical degree]*, and after being trained you beg for years to get a placement for internship and you don't even know what you will be up to after your compulsory internship."*

Faced with the harsh reality of the job situation in the country, some students and young medical graduates, who had not previously thought of migration, now started considering it as an option. Anthony, 24, claimed he had never thought of migrating abroad as an option until he started observing the situation in the jobs market:

"I thought doctors would get jobs automatically, until I began to see doctors who struggled for almost one and a half years to even get a placement for houseman-ship [internship]. *And after their compulsory NYSC* [National Youth Service Corps], *doctors*

working in private clinics for years before getting proper jobs. And so, I am not really encouraged by what I have seen." [5]

Even though Nigeria has a low doctor to patient ratio, with many communities underserved by medical doctors, students complained that sometimes it still "*... feels like Nigeria is now having more doctors than the society can even cater for",* as, according to Bola, a 25-year old student, *"... many doctors are out of school and haven't even found a place for internship months after graduation".* Even completing a post-graduate residency training program was no longer a guarantee that one would get a job as a doctor. Bolaji, a 28-year old student, after citing examples of doctors he knew who were still without jobs months after completing their residency training programs, stated:

"So, you see, by the time you finish even after everything, after the extension of the residency program because of all the strikes: it's not even the six or seven years that it should be. You are done, but then you still can't get a job. Many people finish and then, no placement."

For most Nigerian medical students and recent medical graduates, the preferred post-graduate training path is a residency training programme that leads to fellowship of the National Post-Graduate Medical College, or the West African College of Surgeons or Physicians. However, competition for such training places is very intense, and there is also a severe shortage of spaces available for doctors wishing to train in the teaching hospitals. Acknowledging these shortages, Professor Dike, a member of the management board at one of the teaching hospitals, admitted that it was an issue at his institution:

"We understand the frustration of these young doctors about the difficulty they are going through because we still don't have enough spaces for residency training. There's no doubt about that one, we still don't have enough spaces. It is something management is working to improve. But it is also something that is beyond our immediate power."

Students worried that after their graduation, not only would they struggle to find employment, but those who opted for further training in the form of a residency training programme might

[5] Doctors working in private practices in Nigeria work in conditions generally considered to be less appealing (poor remunerations, lack of job security, longer hours of work) than those in public services. Most doctors in Nigeria therefore consider medical jobs in the private sector as temporary jobs (except for those who own the private practices, or doctors working in a few well-established private health facilities in Nigeria).

not find a space in such a post. Because of the scarcity of these training spaces, some students believed they would have to pay to get a place. Dr Adelusi, who had graduated nine months previously, but only recently got a placement for his one-year compulsory internship, expressed this fear when he stated:

> *"But I think what is happening now is people are finishing and there is no placement for them; it's like they are not even needed. Those that have been there in the system have been there for so long and they are not out yet. Those coming in cannot find any headway to make. Some people go through the residency; some people are now paying to do their residency. Before you used to be paid to do that."*

Seeing their senior colleagues struggling to get some of the limited spaces available for residency training in Nigeria, students with the wherewithal expanded the scope of their search for training to include going abroad. Explaining why she was planning to go abroad for her residency training after graduation, instead of doing it in Nigeria, Mary, a 26-year old student who had recently passed the first part of the USMLE, expressed the same fear:

> *"Some people are paying. I know of a couple of people in paediatrics who are paying to do residency, and you wonder how they can cope paying that. You know they are paying to do it and at the end you don't even have the assurance that when you become a fellow you will be retained."*

While it could be argued that those who have their minds fixed on migrating abroad will find enough reasons to justify their aspirations, it is difficult to dispute the existence of these situations in Nigeria, as described by some of the respondents. Whether real or imagined, feelings of dissatisfaction with the situation in a particular environment pushes people to act in ways that will move them in the direction of an environment that is much more acceptable. In many of these cases, that direction leads them to go abroad. Those who have the resources and support to undertake international migration see the option of going abroad as an expansion of their choices, and a way to avoid the reality of the situation on ground in Nigeria. The failings in the system in Nigeria (lack of jobs, inadequate residency training places, and others) thus provided them with the incentive to look elsewhere (diversify their sources) for the fulfilment of their professional aspirations as explained by the NELM theory.

5.3.2 The quest for a better quality of life

Students, just like those working, want to have a good and stable quality of life for themselves, and for their families when they start them. They want to be able to provide for them in an environment that is reasonably safe and secure, and where the system that operates works to support them. Staff and students both looked at what they saw and experienced, compared it with how they felt it ought to be, and ended up complaining about the general quality of life in Nigeria. The way they saw how this quality of life would affect their future was one of the main reasons migrating abroad to practise appeared to be a better choice for them to make. For example, Dr Chinedun, a senior registrar, in discussing the reasons some of his colleagues gave for migrating from Nigeria, even when they were already consultants or were just about to become consultants, pointed to the quality of life in Nigeria as the major reason some people want to leave:

> *"The major reason why people want to migrate, whether doctors or non-doctors, is just for good lifestyle; people want to live in a society where they are safe, where the basic amenities are readily available …. You see, for a lot of people all they want is for a better quality of life. If it is by going outside that they will get it, I will tell you that many of us will not mind going out."*

Some basic things that people in the West take for granted every day constitute what would make for a better quality of life in Nigeria. A dependable power supply, for example, is a luxury that most Nigerians never experience. Another staff member, a consultant pathologist, lamented the situation in Nigeria, citing the fitful power supply and how this affects his job performance:

> *"It is the Nigerian political, social, economic situation ... you want to use electricity and before you know it, they have taken the light* [power]*, everything will crumble. You cannot maintain that temperature. So, those are some of the things that erm … are making doctors to leave. What people are actually looking for is anywhere they can get a better quality of life; they will always migrate. The most important thing is … what determines whether or not they will migrate is where they will get a better deal, a better quality of life."*

Remuneration is a huge issue that many of the respondents also complained about; not only that doctors were not adequately remunerated, but also that their monthly salaries were not regular. One resident doctor described how some of his colleagues had been without salaries

for months, and wondered if those doctors would not leave the country if they had the opportunity.

> *Some states, because of the present economic situation in Nigeria, now some states like Osun state, they have not paid their resident doctors for 6-7 months and so on, do you understand? Now, do you think if those guys have the opportunity of going out of the country, and are able to get something there, that they will not leave? If you finish your residency program and you become a consultant and you are not able to get a good deal, and you now have an opportunity … people go out. Even some of our consultants who have already practised for years, you will just hear that Saudi Arabia is recruiting and they are going to be paying them some good money; people will go. Eventually what determines whether people go or not is that desire for a better quality of life."* (Dr Ben, 32)

Students saw the experiences of these fellow professionals, and wanted to do whatever they could to avoid similar experiences. They wanted a better quality of life than the one their senior working colleagues were complaining of. Dr Owumi, a 26-year old house officer explained:

> *"Those that migrate abroad from the medical school, they have different reasons for doing so. Many of them are looking for greener pastures, many of them will tell you that "Oh, I just want a place that will offer me better quality of life", "I want a place that will guarantee that there will be electricity 24/7; I don't have to worry about light* [power], *I don't have to worry about all these bad roads, all these security problems; I just want a place that will give me a better quality of life."*

Jude, a 26-year old student, described how when students observed the lives of medical doctors practising in Nigeria, and the way they were treated by the healthcare system and by Nigerian society, they came to believe that *"... travelling away from Nigeria to practise abroad is a better option"* for them to achieve a decent quality of life. Despite the complaints by doctors that their remuneration is not good enough, society sees it differently, and medical practitioners and their families have increasingly been victims of all sorts of security challenges, ranging from robberies to kidnappings, because they are believed to be better off economically, and are seen as profitable and easy targets by criminals:

> *"Most of them* [doctors] *complain about the healthcare system in this country; they are not treating doctors well. Kidnapping everywhere, sometimes they kidnap doctors. Payments, especially the payment of medical doctors' salaries, security, allowances.*

> *All these things are poor in this country. So, they believe that if you travel out they will be well taken care of, unlike in this country. And you will be well paid, you will be very OK. The environment abroad is conducive."* (Jude, 26).

The quest for a better quality of life for oneself and one's family is a major driver of the aspirations of medical students and medical graduates, who look around to see what the system has to offer them and see nothing inspiring about it. On the other hand, they see in foreign countries what they long for: the stability of a system that works, and rewards those who work hard. If they have their way, they will migrate to a country that will guarantee them the quality of life they crave for themselves and their families, because the society in Nigeria does not offer them this reassurance.

5.3.3 The weak healthcare system and infrastructure

Nigeria suffers from a general lack of functioning infrastructure in most of its sectors. Healthcare is not spared. Superimposed on these weak infrastructures is a weak healthcare system that does little to help the existing human resources for health. From inadequate funding, to a dearth of human resources, inadequate and poorly maintained facilities, and poor, sometimes terrible, working conditions, the healthcare system is bedevilled with seemingly intractable challenges. Medical students about to graduate, and young medical graduates, have seen these flaws in the system, and heard their working senior colleagues complain of them regularly for years. If the choice is left to them, they want to avoid the issues they hear their older colleagues complaining about, especially when they hear and believe that there are places with better health systems where they can practise to their optimum potential, and will be better taken care of. Speaking of the reasons fellow students give for their desire to migrate after graduation, Itohan, a 26-year old student, pointed at the healthcare system, stating:

> *"Hmmm, like most of them are complaining that the healthcare system in this country is poor, that doctors are not well paid, this and that … that they would love to travel abroad to practise over there, and think the environment there is more conducive, and they will be well paid. So, these were the reasons."*

A perception of the healthcare system as poorly managed and inefficient was one of the most common reasons cited by respondents for dissatisfaction with the situation in the country. For example, respondents complained that the lack of functioning health insurance in Nigeria means that most patients pay for health-related services from their own pocket. Faced with this harsh economic reality, most people do not seek medical attention till they have no choice; this

results in the late presentation of health conditions, making management much more difficult. Worse still, many service users are not able to pay for the necessary investigations and treatment. Alluding to this while discussing what he felt was attracting young doctors to the healthcare system abroad rather than the healthcare system in Nigeria, Dr Chinedun, a senior registrar, observed:

> *"Probably because they have a functional health insurance, you get what you want; you get your investigations, you need CT scan or MRI, you get it done. Here people can't pay for the investigations. That makes your work as a doctor difficult as you are forced to manage cases without the full benefit of proper investigative support."*

Expressing a similar view, Gloria, a 24-year old student who spent four weeks on an overseas clinical posting, explained that the economic situation in Nigeria makes it difficult for patients to afford baseline clinical investigations:

> *"Here people don't have money. People will come here and just to do electrolytes study, full blood count, they cannot afford it, and in Africa we rely a lot on our clinical know-how to arrive at diagnosis. Most times we don't even have investigation results to work with ... But there* [overseas], *investigations actually make your work very easy. Everything is computerised. The investigations help you to eliminate differential diagnoses, and zero in on the real cause of illness; that saves time and resources, and makes you enjoy your profession."*

The perception that the healthcare system and infrastructure do not encourage proper practice is a leading reason why medical students and young doctors are preparing to leave Nigeria to practise elsewhere. Students and medical graduates want to be able to put into practice what they have been taught during their training, and do not believe they will be able to do it in Nigeria because the healthcare system lacks the necessary facilities. For example, in explaining some of the reasons why his son was so determined to leave Nigeria after graduation from medical school, a parent spoke of how his son believed that for his own professional satisfaction, he needed to leave the country for one where the system works and encourages proper practice:

> *"He believes that practising abroad will afford him the opportunity to utilise the knowledge he has gained while in school to practise medicine, because here in Nigeria doctors complain of lack of equipment, lack of incentives, lack of this and lack of that. And over there in the US, Britain and other developed parts of the world, doctors have*

everything they need to pursue their profession. That is one reason; the lack of infrastructure to practise their profession."

This perception, and the stark reality of medical practice in Nigeria, accounts for why most Nigerians who can afford it travel out of the country for medical treatment. A resident doctor, Dr Femi, 31, wondered why one would expect any doctor with the opportunity to migrate not to take advantage of such an opportunity, when any Nigerian who can afford it prefers having medical treatment abroad, depriving the healthcare system in Nigeria of much-needed investment:

"Why do we fly people abroad for treatment? Sometime ago I got statistics of how much Nigerians are spending on overseas medical treatment; it is a whole lot of money. Why? Now people are even going to India. Most of the time it is either Europe, America or India. It is a whole lot of money."

The huge sums of money spent by Nigerians on medical tourism (Aniebo, 2017) not only represent a huge loss of investment to the national health sector, but are also an indication and a pointer to where those Nigerians have their hearts when it comes to their healthcare needs: they do not trust the healthcare system in Nigeria, and would rather seek healthcare services abroad. Nigerian medical students and medical graduates take note of this, hear and witness the regular complaints of doctors, and do not see any change in direction from policy makers and relevant authorities. As a result, they plan to leave for those same societies where the systems work, where wealthy Nigerians go for their healthcare needs, and where their own expertise and services will be well appreciated

5.3.4 Corruption, nepotism and favouritism

Corruption is a major problem in Nigeria: almost all the challenges facing Nigeria today have been linked to one form of corruption or another. In this study, complaints about corruption ranged from its effects on the implementation of admission policies in medical training institutions, to underfunding of healthcare and lack of maintenance of healthcare infrastructures, and recruitment of human resources for health. For example, while discussing admission into medical school, respondents stated that who you are, and who you know, influences your chances at both undergraduate and post graduate levels.

"Those who actually meet the admission criteria, and those who, probably, are related to staff, and those who have influence and are connected. Because things are no longer

based on merit: it is now based on who you know, how connected you are, and ... erm ... who gave you your recommendation letter." (Toni, a 26-year old student).

This nepotism and favouritism is even more glaring when it comes to getting a placement for internships and employment after graduation. One of the parents had experienced these forms of corruption, and so understood why his son, a final year medical student, wanted to leave Nigeria to practise abroad soon after graduation:

"Erm, you see, virtually everything here now in this country, if you don't have 'contact' you don't get it. Almost everything; it doesn't matter how good you are. That's the area that worries me, and also, one of the areas that took me overseas. I personally don't believe in those things and I didn't practise those things. So, if he can not ordinarily get what he wants here, and he can conveniently get it elsewhere, fine."

The scarcity of training spaces and employment vacancies further exacerbates this kind of corrupt practices. Another parent, himself a healthcare professional, while giving the reasons he was supporting his son's plans and desire to leave Nigeria after graduation, stated:

"The system is ... erm ... I am talking of the area of medicine that we are zeroing in now. Of course, it is affecting some other areas too, but in most professional areas now it is whom do you know; whom do you have as a backer. If you don't have it, you can't even move. You can't even do houseman-ship [internship] *now. Before it was a right; because for a long time, for the past 30 years I have been in the medical environment. It was a right for a medical student that has passed his exams to immediately start his houseman-ship; these days sometimes they spend 2 years here and they don't get anywhere to go to."*

Re-echoing these feelings about how nepotism and favouritism have affected his support for his son's aspiration to migrate after graduation, another parent, a professor in the social sciences department of the same university as his son's medical school, complained:

"And it's only, oh if your father is a consultant here or there; those are the people that ... or they exchange; your child should come this way and my own child will go that way. The rest are left on the street. So, if we can shift those pains away from me by other means why not!"

When corruption takes root in a system, merit suffers, as it is sacrificed as favours are traded in return for personal gain. Even among those who are working in the healthcare system,

climbing up the career or professional ladder can be hard if you are not 'connected'. Responding to the question of whether he felt nepotism and favouritism were issues in the Nigerian healthcare system, as alleged by some of the interview respondents, Dr Badeh, a surgeon, observed:

> *"Well, yes. Especially, if you don't have a godfather in the area where you are; it's a difficult thing to grow up in the medical hierarchy in this country. That's my opinion anyway."*

The effects of corruption on society can be devastating: decaying infrastructure, and a general breakdown of the system, which make normal running of the healthcare sector difficult. Even worse, merit is pushed into the background, while elevating mediocrity and a culture of patronage. Experiencing the effects of favouritism and nepotism, especially the type described by the parents above, would frustrate anybody, and oblige them to start thinking and planning to settle elsewhere, where they can avoid experiencing such treatment. The support of such parents for the aspirations of their children to migrate after graduation from medical school is explained by the NELM theory as a strategy to insure their children and their family from the failings in the system in Nigeria.

5.3.5 Personal desire to experience life outside Nigeria

The desire of individuals to live and experience life outside Nigeria also emerged as a factor in the aspiration of Nigerian medical students and medical graduates to emigrate as soon as they have the chance. Hearing stories about how things are done in developed Western countries from staff and fellow students who have been abroad, seeing it on TV and in movies, seeing and reading about medical practice abroad in this age of the internet, and comparing these depictions with the numerous challenges that they face in Nigeria; many medical students and young doctors feel that what they aspire to be professionally is not in Nigeria but out there in the wider world. And because this is their dream, they will give whatever it takes to make it happen.

> *"I think there is this mentality of every young man that out there is better than here, and that whatever I go to get there surely will be better than what I have gotten here. And actually, to say the truth, many of them would have been well prepared from whatever they got from Nigeria, even though they still feel it is not good enough."* (Professor Akatubi).

Having been 'well prepared' by the education and training they have received, and seeing the options before them as they are about to graduate into the job market, most students and young medical graduates who can afford it want to live, and experience life, where they feel their dreams and aspirations have a chance of being met.

> *"Some want to settle in different climes; they are not happy with the way things are run in this country generally; the economy is not so good according to them, and some believe they will have better experience; getting to learn how things that people here will not know when you compare them in a seminar or a conference"* (Dr Ade, a 41-year old senior registrar).

Alluding to this personal desire of individual students to want to experience life outside Nigeria, a parent described how, from his experience as a lecturer and adviser to students, he felt that the average Nigerian student he had encountered wanted to go abroad after graduating if he or she had the chance.

> *"As a lecturer in* [the] *University of Benin, I do hear of our students here; after graduating their aim is to go abroad to practise. So, apart from the fact that he is my son, I do know that the average Nigerian student after graduating from here, if he has his way he would rather go abroad to practise."*

This desire is not limited to students and young graduates; even those who are already established would leave if they had the chance, according to Dr Ade, a 41-year old senior registrar. He stated that many doctors would appreciate the chance to experience life outside Nigeria, even if for a limited period before returning home.

> *"Some of our bosses (consultants) who have spent almost all their practising lives here in this hospital; when they hear of the opportunity to go outside to practise in a different environment, especially where they have state of the art facilities, they jump onto such chances because they want to experience life outside this place too. They go out there, get more experience, get exposed to better and much more modern clinical facilities, then come back after a while. It is all part of the scheme here."*

A part of the reason students and young medical graduates want to leave Nigeria to experience life elsewhere is because they too "... *want to have access to the state of the art facilities"* they have read about in textbooks, and which they have yet to access. While discussing the state of their training facilities, one student lamented not having access to some of the modern

diagnostic facilities that he had read about in textbooks. He still wanted to have access to them, and hoped to do so if he had the chance to migrate after graduation:

Respondent: *"I hope that one day I will be able to have access to them as a doctor or maybe when I have the chance to leave the country, I think it will also provide me better opportunities with ... erm ... more modern facilities, modern techniques of doing stuff."*

Interviewer: *"Your senior colleagues who have graduated and are practising now, do they tell you they do not have access to them now after graduating?"*

Respondent: *"Majority of them in Nigeria don't have access to modern state of the art facilities. I just told you that there are … how many MRIs do we have in Nigeria, how many CT scans do we have? So, that is why we transport patients to larger, bigger centres and why our leaders travel abroad for medical treatment."*

This quest for access to the modern facilities eluding them in Nigeria pushes ambitious students and young medical graduates, who want to be like their colleagues in other parts of the world, to start preparing to leave Nigeria, as they see no chance of accessing those facilities if they remain in Nigeria.

5.3.6 Economic and social mobility

People are preparing to migrate, but not only because they are fed up with what is happening in Nigeria. Many of the respondents in this study were doing so because they saw it as way of improving their economic situations, and by so doing, climbing up the economic and social ladder. This was especially true in the case of parents, who had invested heavily in the education and training of their children, with the hope that their qualification as doctors would mark the beginning of improved economic fortunes for the whole family, as well as for the doctors themselves. As the NELM theory says, families are interested in both absolute and relative improvements in the fortunes of their members. For some of these parents and individuals, migrating abroad to practice is a surer and quicker way of improving their economic and social status than remaining in a system whose failings they are well aware of. Some of the most common recurring themes in this study, especially when speaking about the benefits respondents hoped to gain from leaving Nigeria to practise abroad, were the better

remunerations, better training, and better working conditions they hoped to achieve working abroad compared with those available in Nigeria. They described how those that have passed through a sojourn abroad returned different people economically.

> *"They went there, some of them got the money, and when they discover their money was big enough they came back home, built houses, bought fantastic cars and decided to remain here."* (Dr Tobi, consultant physician)

Observing the lives and economic fortunes of those who left Nigeria and practised abroad for a period show such improvement serves as a motivating and encouraging factor in the plans of those aspiring to leave the country. Amongst those who admitted being at various stages of preparations to migrate after graduation, better socio-economic opportunities and improved earnings were frequently the reasons cited for their aspirations. For example, Efe, a 26-year old student, when giving the reasons he and his friends were planning to leave Nigeria after their graduation, stated, "S*ome of them say money; they believe they will earn more when they practise or train abroad".* Similarly, Leo, a 28-year old student and classmate of Efe, gave the same reason:

> *"There's more financial opportunities, doctors are paid better abroad. So, the benefits will be* [a] *better life, in the sense that I will have access to financial independence. A doctor in Nigeria is not well paid. There is better training too: when I get that training as a doctor abroad in any field of medicine, I will be better trained to save more lives, and deliver better health services."*

This search for a better income, in order to be able to provide a better quality of life for oneself and family, was a common reason given by almost all the respondents in this study. One parent's conclusion was that, "*Irrespective of the challenges doctors faced in Nigeria, the over-riding reason why they are preparing to leave the country is purely socio-economic".* They want to earn better incomes so they can better provide for their families.

> *"Doctors migrating is just either for economic reasons, because they think they will earn more money, or because they just think that "... ah, I think I will get a better life for myself and my children when I travel".*

The low value of the Nigerian currency means the exchange rates are favourable to those sending remittances from abroad. Such remittances convert to huge sums of money that dwarf earnings in Nigeria. This makes working abroad and sending remittances home a huge

economic advantage to the families involved; having a family member (the doctor) working abroad as explained by the NELM theory is therefore a better way to insure the family against economic and financial risk from failings in the system in Nigeria.

However, families of migrants benefit in other ways in addition to financial returns. A parent described how having a child abroad enhances the chances of other family members also travelling abroad. While this might not amount to much of a benefit for some, for many Nigerians obtaining a visa to leave the country, for whatever reason, is a complicated issue. Having somebody who can invite you over, and so make the process of obtaining a visa easier, is a huge benefit to such individuals if they have family members living abroad.

> *"Some examples of some of the benefits you get from having your son practising abroad, of course, sometimes financial. You know, they send money to us the parents, they send to their brother if they have. That is one. The other thing, well occasionally, but that's really not a big deal, but it's personal; travelling overseas and all that; it makes it easier in a way, but it's not a big priority on our own side. But for many families it is a very big issue; it is a big privilege for them. The same class issue; oh, he has a son that way; as if it is a big issue. But that's a Nigerian factor."*

It really was not 'a big issue' for this respondent, because he studied abroad, and had two sons working in the US: for other families however, it is a big issue, and could be the difference between having their visa applications approved or rejected. Families also speak of their improved standing in the community because they have a child or children abroad. Not only are they seen as role models, but other individuals and families seek their advice and support when they want to embark on their own migration projects.

> *"You know the way we Nigerians are: most often we look for a way out. When we see something good we say "oh, this is good; let me look for a way out to be like that too". But I haven't had any … well, apart from people coming to me to say, "Oh, my son wants to go to the US; please can you give me your son's contact so that we can talk with him", or "My wife is going for so and so thing, going to deliver, or something, so that we can use your son's contact to get somethings done."* (Parent of student).

Another parent described how the standing of his family dramatically improved in his community once his children settled abroad, there was a steady inflow of funds for the development of family properties, and his family started driving assorted brands of cars sent by his children.

> *"People see these things: the fact that my economic situation improved. And I could sense the change in attitudes towards me and my family: the general show of respect, the fact they invite you to important meetings and occasions. They also expect you to make generous contributions and donations too; so, it also comes with some more responsibilities."*

The improvements in the economic fortunes of families with a member who has migrated abroad moves their socio-economic status upwards in the home community; they are now viewed as belonging to an improved class (*upward social mobility*). Having a family member working abroad, therefore, serves not only as a form of insurance against any potential failure in the economic system in Nigeria, but also as a way of improving the socio-economic status of the family relative to other families in the local community, as described by the NELM theory. After witnessing the gradual transformation of a neighbouring family's fortunes following the migration of one or more of their family members, other families take their cue, and start preparing for some of their own members to migrate. The flaunting of such acquired wealth: for example, new cars, foreign fashions and lifestyles, and the development of new properties, in the face of poverty in a poor neighbourhood also serves to inspire youngsters to aspire to migrate, so that they too can acquire the wealth that will move them up the social ladder; in this way helping to perpetuate international migration in that community. Kidd (2001) describes this as people shaping and perpetuating a culture by their day-to-day interactions with others.

5.4 Aspiration to migrate after graduation

To discuss the aspiration of this study's respondents to migrate after graduation it is important to return to the survey data (*Table 12: Summary table by institutions*): less than half (41.7%) of the students surveyed in this study showed a positive aspiration to migrate after graduation, while a slightly larger proportion (43.6) were indifferent (see *Appendix 14: Summary of key survey*). On the other hand, only 14.75% of respondents showed a negative aspiration to migrate. As shown in Table 12*: Summary table by institutions*), the score for migration aspirations varies remarkably between the different schools, and in only one school; the University of Ibadan (UI), is this score above 50%. Bivariate analysis of the associations between respondents' aspirations to migrate and other variables were assessed by Pearson Chi Square test, with test significance levels at $p < 0.005$. The analysis showed statistically significant associations between respondents' migration aspirations and several factors (see

Appendix 17: SPSS Output): respondents' gender (P = 0.012), respondents' family migration history (P = 0.032), whether the respondents' family member abroad has practised or is practising medicine abroad (P = 0.012), respondents' experience of studying medicine, and respondents' views on migration (P < 0.001).

The working hypothesis guiding this study was that a combination of social and structural factors in the medical schools in Nigeria leads students to aspire to migrate from Nigeria after graduation. With this in mind, I was interested in the factors that significantly correlated with their aspirations to migrate, and particularly, in which of the factors, significantly associated with their aspirations, that could be a predictor of whether or not a medical student aspires to migrate from Nigeria after graduation. To investigate the joint effect of the above variables, (considering any possible correlations among them), and to assess which of the associated variables better predicts students' aspiration to migrate after graduation, a multiple linear regression analysis was performed with respondents' 'aspirations to migrate' as the dependent variable. The above variables were selected for inclusion into the regression model by a stepwise selection method. Of those variables, the respondents' 'views on migration', their 'gender', and their 'family migration history' (whether they have a family member abroad) were shown to be the predictors of the medical students' aspirations to migrate after graduation, in the regression model (see *Appendix 17: SPSS Output*). Respondents' views on migration were dealt with in earlier sections of this chapter (*section 5.3*).

Table 13: Aspiration to migrate by "Gender".

		Negative n (%)	**Neutral n (%)**	**Positive n (%)**	**Total n (%)**
Gender (P = 0.012)					
Male		14 (10.8)	58 (44.6)	58 (44.6)	130 (100.0)
Female		17 (20.0)	34 (42.0)	30 (37.0)	81 (100.0)
	Total	31 (14.7)	92 (43.6)	88 (41.7)	211 (100.0)

Respondents' gender was found to be significantly associated with their aspirations to migrate after graduation; a significantly higher percentage of males (44.6%) aspired to migrate after graduation than females (37.0%) (*Table 13: Aspiration to migrate by "Gender"***.**). This survey finding echoes a similar finding by Deressa & Azazh (2012), and Eliason et al. (2014), that male gender is significantly more associated with the aspiration to migrate after graduation. This association could be the result of the way the Nigerian, and African society in general, treats or relates to male and female gender on issues such as marriage, and raising a family, amongst other factors. Here again, it is important to use the qualitative data from this study to explain how the gender of respondents may affect their expressions of their aspirations to migrate. The average Nigerian, and African family and society in general, expects females to prioritise marriage and settling down to raise a family over pursuing a career. For example, during interviews, some female respondents expressed *"... the fear of the time it would take for one to settle down* [marry] *in a foreign country"* as one of the reasons they were not so keen on leaving Nigeria for training or practice abroad.

> *"If I have to go, it is now that I am young; after now, it doesn't really make much sense for a lady. You have to think of settling down, you know ... It is different when you are a lady. Guys can go wherever, develop themselves and come back before settling down, even when they are thirty-something years old. Not so for ladies."* (Female student).

Female students who are married or engaged also tie their plans for life after graduation to their husbands' or partners' plans. For males on the other hand, society has different expectations: to develop and position themselves as the breadwinners of their families. So, if they believe training or practising abroad will serve that purpose better, they will travel. The male respondents in this study also appeared to be a lot more forthcoming about their desires, plans and preparations for leaving Nigeria after they graduate than the female respondents. Similar, findings were reported by Kandel and Massey (2002), showing females being less likely to express their desires or aspirations than males.

The involvement of respondents' families in international migration also significantly influences their aspirations to migrate after graduation, and this is discussed in the next chapter where I discuss the family and its role in the support of migration (*see Section 6.3*).

5.5 The seriousness of respondents' preparations

5.5.1 "Medical education in Nigeria over-prepares you for qualification exams abroad"

In the course of this study, participants described how serious they were about migrating from Nigeria, and the various ways in which they were already preparing to leave Nigeria soon as they had the chance after their graduation. Starting with how some believed that medical education in Nigeria prepared them for the challenges they would face in their migration projects, students described how the difficult learning environment they have had to go through during their medical school training has prepared them to overcome those challenges.

> *"The medical education we have here over prepares you for your qualification exams for opportunities abroad. Because learning is harder here, so when you have learning where you have teaching aids and they are even supporting you to pass, it is almost like a cheat code for people that are coming from a place you are destined to fail; and somehow you survived. So, it's … I think that's the positive thing about the Nigerian medical education"* (Timothy, 26)

Explaining why she felt her medical school education in Nigeria had prepared her to meet the challenges of practising in the "... well-equipped hospitals" she aspires to work in when she leaves Nigeria after her graduation, Martha, 28-year old doctor who recently started her internship stated:

> *"Because here you have to undertake a lot of diagnoses without actual diagnostic tools. So, it makes you more efficient. Let me put it that way … it makes you more efficient when you go abroad."*

One of the three parents interviewed as part of this study (see *Section 3.7.4: Profile of interview participants*) echoed this perception of medical education in Nigeria preparing students to take on the challenges of their migration project, when he proudly described the success of his son in passing the United States Medical Licensing Examination (USMLE) while still a student:

> *"Yes. I think it is money well spent, because I wanted to see how he is faring internationally, because he is doing well here in Nigeria, but writing that exam gives me an idea of how he is faring along with his counterparts who are also studying medicine in other parts of the world. The mere fact he has passed the two stages he has done gives me a lot of hope and happiness."*

Yet another parent, also proudly speaking about the academic exploits of his son, stated:

"He has done two of these exams now. As a matter of fact, he travelled all the way to Accra, Ghana, to write these exams because there are no centres here in Nigeria. And he has scored very well, so it's like he is just waiting to graduate."

Recording such success in foreign licensure exams assures both students and parents that the students are ready for the next phase of the migration project. Parents also feel reassured that whatever they *"... have invested in the entire process is money well spent"*. Ironically, the people who, assessing the quality of medical education in Nigeria, described it as deficient, and not living up to their expectations and aspirations, are the same people who claimed the same education system had prepared them for the challenges they expect to meet when they leave Nigeria to train or practise abroad.

5.5.2 Successful students as role models

Each success recorded by students (and house officers) in passing the overseas qualifying exams further reinforced the belief that the education they were currently receiving had equipped them for their migration projects, and in a way, inspired and strengthened the resolve of others to try and make similar preparations, by enrolling for those exams. Jide, a 26-year old student who had passed the first two stages of the USMLE, alluded to this while discussing the category of students who are planning to migrate after graduation. He talked about close friends he had influenced into *"... choosing that pathway",* as they were inspired after seeing him sit for the exams which would enable him to study abroad. Fellow students now sought his advice on how to go about their own migration projects, especially, on how to sit for and pass the USMLE.

Most students started giving serious thought to their plans for life post-graduation when they were in their final year. For example, Clara, a 26-year old student, who said that she was not too "... big" (in other words, keen) on going abroad to train or practise before the time of the interview, had noticed the increasing frequency of group discussions around the topic as graduation approached, and students heard the stories of some of their classmates about their successes in passing the overseas qualifying exams:

"Once in a while, but as of late, more frequently; as we are getting towards the end of our medical training, it becomes more because right now we are in our final year, so a lot of the discussion is based on where you are going to do your house job, where you

are going to do your residency, in which specialty, which country. So, I will say that we discuss it more frequently these days."

Many students who, like Clara, were not thinking of migration or even considering it as an option to pursue after graduation, started thinking about it because of these frequent discussions. Mike, 25, described it as becoming *"... rampant"*, and he even saw students who did not show any interest in migrating abroad for further training or practice as *"... not being ambitious".*

"Different people with different opinions, but those of us that are like-minded and that want to go out; because I want to see the way things are over there, we do discuss quite often. Especially, it's kind of rampant nowadays. It is something that every now and then people keep talking about; if I get the opportunity I think I am going to leave this country."

The medical students realised that they were at the end of one phase of their training and lives, and about to commence the next phase. The decision about the next phase of their lives was one they took seriously; they had been discussing their options amongst themselves, and some of them had arrived at the conclusion that what they needed, in the next phase of their training and lives, was not in Nigeria. Timothy, a 26-year old student claimed, "*... once we talk about training in Nigeria, the next thing you hear is, 'you need to go out and get proper specialist training'. It is like training here is no longer the thing to look forward to".*

The students believed that they had been prepared by the training they had received in their medical schools, and were ready to embark on the next phase of their professional development. For those who had concluded that the way to go was to migrate to another country, with better training and practice facilities, all their efforts were likely to be channelled into preparing for their migration projects. While for some students it was a game of chance: they would migrate if the opportunity presented itself, otherwise they would continue to train and practise in Nigeria, for others it was their only plan, and they did not intend to train further or practise in Nigeria at all. The case of Jide, 26, was illustrative of this: he had passed the two parts of the USMLE that could be taken outside the US, and now could not wait to graduate, and leave for the US to fulfil his dreams. He had no plans of further training, or practice, in Nigeria:

Respondent: *"I consider, after finishing medical school, to go into academics and teaching; do my masters and then PhD. And go and teach without*

practising clinical medicine … Do my masters, do my PhD and teach medical students; anatomy, physiology, biochemistry… "

Interviewer: "Will that be teaching here in Nigeria?"

Respondent: "No. None of my options involve Nigeria; I am not really reasoning Nigeria. In considering my options, I am not reasoning Nigeria at all; I am only reasoning going to America."

Similarly, Kome, 24, described his priority as *"... getting a placement in the United States"* either for training or practice; just like Jide, none of his post-graduation plans involved training or practising in Nigeria.

Jide and Kome are not alone in their line of reasoning. Many of the students interviewed had plans, and were at various stages of their migration projects. While some were just at the beginning of their preparations, others had sat and passed various stages of overseas qualifying exams. Still others had passed these licensing exams, visited foreign countries during overseas postings or exchange programs, and had promised themselves to return abroad after graduation. Martha, a 28-year old student, explained:

"At least among my peers, those I have had interactions with, a very good number of them in my class have plans already of leaving the country."

The preparations could consist merely of making enquiries about the requirements and processes involved in registering for qualifying exams, or sourcing study materials for these exams from friends, colleagues and the internet.

"I have gotten some materials, and I have started making enquiries about the exams for the US. I haven't made for Canada at all, but the US basically, and I have gotten some USMLE materials, I have gotten some of the Kaplan works and all that (Caleb, 25).

For Dauda, 24, his dream was to migrate to the UK to practise after he graduated. To fulfil this dream, he had been preparing by sourcing the information he needed to register for and sit the Professional and Linguistic Assessments Board (PLAB) exam (the British qualifying exam for international medical graduates). He was receiving advice on his project from various sources, and intended to put this information together to make a success of his project when he was ready:

> *"I have been watching videos of people who have gone, and explained how it worked for them; to adapt, how to write the exams. And I have gone to the GMC website and I know the requirements."*

Another group of students had already been abroad as part of their institutions' exchange programmes with overseas medical training institutions. For some of them, that experience was the first step; when they graduate, they hoped to follow the same process to migrate from Nigeria. Speaking about this group of students, a resident doctor stated that the students he had had the chance to talk with about their overseas training experience explained to him that "... *they actually liked what they saw over there more than what we have here",* wondering whether anything would hold them back from leaving Nigeria once they graduated.

> *"A lot of them have left for outside posting overseas, and they have seen what obtains over there compared to what it is here. I am afraid there is very little we can do here to hold them back after that experience. You need to hear and see the glow and spark in their faces when describing their experiences."* (Dr Uche, resident doctor).

After experiencing medical training (and practice) abroad, some students may have already made up their minds about where they want to go for further training or practice. In most cases, the students who participated in these exchange programmes were from wealthy families that could afford to bankroll the migration projects of their children; if these students chose to go abroad for practice or further training, they already had the resources to embark on their migration projects. Even students from families who did not fall into the 'wealthy' category, and therefore may not have participated in exchange programmes, did not have to worry much about financing their projects if they chose to migrate; they only had to "... *save money from their internships or from salaries when they start working"* to invest in their migration projects. Some respondents described how they had been making such savings from their salaries as house officers and resident doctors, to invest in the various expenses of qualifying exams, visa applications, flight tickets, and living expenses in their destination countries. Other medical students and house officers had registered for various overseas qualifying exams as part of their preparations. Still others had already sat various stages of these exams and passed. All they were waiting for to move on to the next phase of their migration projects was their graduation from medical school.

> *"I know a couple of people like myself, who have passed the USMLE; once we graduate and complete our house jobs* [internships] *and Youth Service, we are leaving to further*

our training in the US. It is a lot of investment, and we hope to make it worthwhile." (Tom, 26)

"We are not only serious about it: everybody is working towards it, trying to gather salaries from internship earnings towards getting tickets and work visa processes." (Matthew, a 27-year old house officer)

All three parents interviewed as part of this study also confirmed their awareness of the preparations their children were making towards migration after their graduation from medical school. They understood the concerns of their children, and why they wanted to leave Nigeria after their graduation. They were all in support of the plans, and were ready to provide whatever was needed to help their children achieve their dreams.

"For a long time now, he has been talking about when he graduates ... he will go to the US. As a matter of fact, he has done two exams now that will qualify him to practice in the US, and I was told that he made high marks." (father of student).

Another of the parents said his son "*... knows that to practise in the US or UK he must pass these exams, so he is writing these exams even while still in school".* The students knew what would be required of them at each stage of their preparations. Crucially, they knew where to source the information they needed, and where to go for help should the need arise.

While students were registering for and sitting the various stages of foreign qualifying exams even though they had yet to graduate, they avoided registering for similar examinations (Primaries of the West African College of Surgeons/Physicians, or the National Post-Graduate Medical College of Nigeria) that would qualify them to go into residency training programmes in Nigeria. Asked why this was the case, most respondents just shrugged the question off by saying they were not interested in residency training in Nigeria under current conditions. They then cited the various reasons (already stated) why they felt the medical education system in Nigeria failed to meet their post-graduate training aspirations.

"Because of those same things I have been telling you. Why would I want to go through all that experience again just to end up complaining the way our residents are complaining now?" (Jide, a 26-year old student).

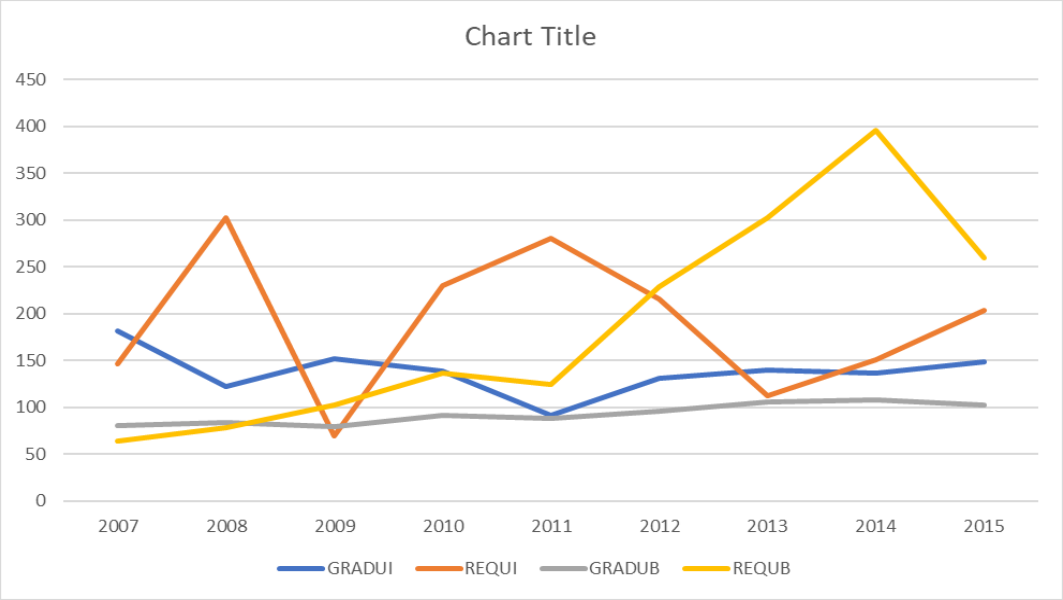
The preparations of these students and young medical graduates did not include preparations for post-graduate medical training in Nigeria because they did not believe the Nigerian residency training programmes had what it takes to allow them to achieve their desired

professional goals. For some of these students, the only preparations they were making for their professional life post-graduation were the preparations that would take them outside Nigeria. Massey et al. (1993) describe the fact that these students are neglecting opportunities to connect with, and take advantage of, chances at home, as one of the characteristics of a community with a 'culture of migration'.

5.5.3 Request for ECFMG result verification

For medical students and medical doctors who want to practise in North America, the first step to getting a practice licence is to register for and sit the United States Medical Licensing Examination (USMLE) or the Canadian equivalent, The Medical Council of Canada Evaluating Examination (MCCEE). To register for any of these exams, the candidate has to provide verification of their competency status, either as a medical student or a medical school graduate. The body responsible for this verification or evaluation of students and doctors' qualifications to sit for these licencing exams is the Educational Commission for Foreign Medical Graduates (ECFMG). This commission writes to the training institution of each applicant to verify their status and competency level. Where records are kept of these requests for ECFMG verifications, such records provide evidence of the intentions of applicants, as well as showing the seriousness of their preparations for migrating from Nigeria to the US or Canada. Such records can thus serve as a proxy measure of the migration intentions of medical students and medical graduates. The two schools in the third phase of this study (*the cases*) keep records of request for ECFMG verification. Figure 4 (*Graduation numbers vs request for ECFMG verification*) shows the graduation numbers against the request for ECFMG verification for both schools. While some of these requests for verification might represent repeat requests: for example, somebody requesting verification for a second time; or double requests: the same person making a request for the US and another for Canada, the numbers are alarming, especially when compared with graduation numbers from the same institutions in the same year. For example, in 2007, both schools graduated more doctors than were requesting verification of their status, but by 2015 the number requesting verification of their status was almost double the number of graduates from both schools.

Figure 4: Graduation numbers[6] vs request for ECFMG result verification



GRADUI - Graduation numbers from the university of Ibadan

REQUI - Request for result verification, university of Ibadan

GRADUB- Graduation numbers from the university of Benin

REQUB - Request for result verification, university of Benin

The data also shows (*Figure 4*) that while graduation numbers have stabilised, due largely to admission quotas imposed on the schools by the regulatory bodies (NUC and MDCN), the number of requests for verification has continued to increase. This is particularly so for the university of Benin where the numbers of those requesting for verification of their result and status are more than double the number of medical graduates produced between 2012 and 2015. Again, these verification requests are only for those intending to migrate to the US and Canada; requests for the UK and other European destinations, as well as requests to other African countries, such as South Africa, are not reported here as they typically use different verification methods (the UK, for example, uses 'letters of good standing' from the Medical and Dental Council of Nigeria).

Though these requests for verification of status came mostly from students and medical graduates who obviously wanted to train and practise outside Nigeria, this study's findings also

[6] The figures for the graduation numbers as provided by the institutions appeared tentative: it was explained that the figures were likely under reported by a few numbers as some students repeat and pass their final exams in between academic sessions; some of these graduating students were not included in the figures, especially, at the University of Benin, where the records office had issues reconciling the graduation numbers.

reveal that doctors in residency training programmes, working towards becoming consultants in various medical fields in Nigeria, were also among those requesting verification of their status; they also wanted to leave, and were preparing to do so. Most of the respondents agreed that securing a position for a post-graduate residency training programme, as a first step towards becoming a fellow (consultant), could hold them back, delay their departure from Nigeria, and, in all probability, change their intentions and plans to leave. For some respondents however, even the residency training programme would not be enough to stop them from leaving; when they got the chance, they would leave, irrespective of how far they had progressed, and at what stage of their training they were. One senior registrar, just a stage away from being a fellow (consultant), stated that it did not matter to her at what stage of training she was, when the chance presented itself, she would leave.

> *"Because no matter the stage you are in here, when you get there (abroad) you still have to write same qualifying exams just like a doctor that graduated today; being a fellow here doesn't count when you leave this shore."*

Asked whether it did not bother her that when she eventually arrived in her destination country she would have to start over almost from the beginning, she replied, *"... no, it does not bother me; it is part of the sacrifice you make to have a better future"*. Recalling the number of her colleagues who had left their residency training programmes at various stages, she claimed that the only thing that was holding her (and others like her) back from leaving, like her colleagues who had already left, was the fact that she still had a stage of the USMLE to pass, stating, "*I don't want to leave without completing my USMLE here; it is better to complete the exams here before leaving".* Another registrar explained that most of his colleagues leaving Nigeria to train or practise abroad would have weighed the benefits against the risks they were taking, and arrived at the conclusion that it was worth it, before deciding to leave Nigeria. He pointed out frankly that when they were undergraduate medical students, many of their fellow students were the children of their professors; and that now, these same children are all either training or practising abroad. He wondered, *"Why not join them? If it is good for their kids, surely it would be good for us too".*

Some consultants may even be on the list of those requesting verification of their proficiency status; some of them also want to leave. One senior registrar described how some of their consultants, on realising the difficulty of achieving their dreams while practising in Nigeria,

took matters into their own hands and looked for alternative ways of achieving what they wanted by leaving the country to practise overseas:

> *"Some of our consultants that have been practising for years; when they find out that they are not able to put up a nice comfortable building or home for themselves and their family. And they discover that if they go outside the country they would be able to gather some good money, some tidy amount of money, and then come back home and quickly put up a structure: they just go, work for a couple of years, earn the money and come back."*

Leaving Nigeria to go abroad to practise for a period before returning home was explained by some respondents as one of the ways some senior consultants in Nigeria overcame what they described as "*... the poor remuneration of doctors in Nigeria*". Staff members complained that their salaries were such that most of them were unable to achieve their socio-economic goals without additional or alternative sources of income. Confirming this, one young consultant responded by stating that if migrating abroad to practise was what it would take to achieve their desire to provide a decent livelihood for their family, then it is what he and his colleagues were ready to do. He blamed it on the system in Nigeria, where doctors are not well remunerated, and where, to own a home, you must build it yourself, without any support from government or mortgage institutions, *"... except you are connected".*

> *"At the level of a consultant you should not be a tenant. In this country, and in our culture, we value being a landlord or home owner far more than the way they value it in other places."*

Another consultant expressed the fear that, considering what it would cost, it would be difficult for a doctor to build a home suitable for a family with what he or she was paid working as a consultant in Nigeria; agreeing that it was one of the reasons some of his colleagues had already left, and others were considering and preparing to leave. He too was preparing to leave, because, as another doctor stated, *"... nobody wants to remain a tenant for ever".* He saw going abroad to practise, even if only for a few years, as one of the solutions to the difficulty of building a home befitting his family.

5.6 Conclusion

That there is a 'culture of migration' in Nigerian medical schools is becoming difficult to deny. This study found evidence of factors characteristic of a culture that supports migration in the

medical schools studied: over two-thirds of the students surveyed (74.4%) had a positive family migration history, almost two-thirds (63.5%) viewed international migration of doctors positively, and over 41% showed a positive aspiration to migrate after graduation. All the reasons put forward by respondents in this study for their views on the migration of doctors, and their aspirations to migrate from Nigeria, have one common denominator; failures in the systems (medical education, healthcare, public social infrastructures, security) that are supposed to cater for them. The dissatisfaction that these failures breed drives those at the receiving end to seek out ways to minimise the potential risks that could arise from these failures. They look away from Nigeria and see a semblance of what and where they aspire to be. Having weighed the challenges they face in Nigeria, and those which they will have to overcome to achieve their dreams in foreign countries, many of them have reached the conclusion that the future is somewhere outside Nigeria. Their aspirations to migrate, therefore, are part of their plans and strategies (as explained by the NELM theory) to insure themselves and their families against the risks that the failures in the systems in Nigeria generate. The medical education and training they have received provides them with the foundation upon which to build their plans for this insurance. Their education and training has also prepared them for the challenges ahead in their migration projects, as they have heard and seen others from their institutions *"... making it abroad"*. So, they enquire about how to proceed, and what it would take, they search the internet, register and sit for overseas qualifying exams, even while they are still in medical school, preparatory to migration as soon as they have the chance. They largely ignore chances to connect with local opportunities in Nigeria, because migrating abroad has become cultural, and because they have been preparing for migration, and so expect to migrate. Those unable to leave immediately will be patient, take on whatever is available for the present, but keep working on their preparations. Whenever the chance presents itself they will leave, irrespective of the stage of work or training at which they find themselves, because that is their strategy to insure themselves and their households against risks to their collective income and professional well-being.

CHAPTER 6

A SYSTEM IN PLACE

"There's already a support structure there, because he has two elder brothers there in the US." (Parent of a student).

6.1 Introduction

Although the factors associated with the initiation of migration are well known, Massey et al. (1994) and Hagen-Zanker (2008) argued that over time, international migration becomes independent of these 'push' and 'pull' factors, and becomes self-sustaining, with each act of migration generating changes that make future migration much more likely. Hagopian et al. (2005), on the other hand, described how individuals involved in migration become role models for migration, further perpetuating a migration culture.

A migration culture, however, requires structures in place that will support those who want to migrate, and individuals intending to migrate will need to be aware of those structures, or have information on how to be able to access those structures in the community. The structures supporting migration could be formal and well organised, for example, involving migration agencies that recruit and prepare would-be migrants in source countries for their journeys, and help them to settle in destination countries. On the other hand, they could be informal and not so well organised, such that it becomes difficult to point at any such structures. Either way, migration from one country to another necessarily involves one of these forms of support, or the other.

This chapter describes the structures in place, both at the institutional and societal level, that help to sustain the continuing migration of doctors from the healthcare system in Nigeria. The chapter examines how these structures operate, how the students and medical graduates in the two schools involved in the third phase of this study make use of them, and how these structures interact to drive migration from Nigerian medical schools.

6.2 Support structures

Migrating from Nigeria to practise in a foreign country is a major project: it costs a lot in terms of resources, planning, and execution of the plan. For example, both medical students and young medical graduates will have to start their preparations quite early, by taking qualifying exams that usually come in stages. They will also have to ensure that their medical

qualifications in Nigeria are recognised in whichever country they plan to go to. So, in addition to the desire and aspiration to migrate, a medical student or young medical graduate needs a backbone of support, in order to meet the array of requirements that their migration project demands. This support usually comes in three broad forms: support from the family, support from social connections, and support from ones' training institution. The relevance and role that each of these play in migration projects depends on the individual involved, their family migration history, and the institution they attended.

6.3 The family

In this study, two students (one from each university) with a family migration history, and their parents who have had the migration experience were recruited as the embedded units of this study's analysis: to look into the role that the family plays in establishing and perpetuating a migration culture in the institutions (see *section 3.7.4: Profile of interview participants, and Appendix18: Demographics and characteristics of interview participants*). As explained in *section 3.7.4*, while the study focused on these two families as embedded units of analysis, all the other study participants were asked about the influences of their families (almost all the staff interviewed happened to be parents who also gave their insights as such).

6.3.1 Role in the decision to study medicine

The family forms the primary support base for most of the students and young medical graduates planning to migrate. For the most part, support from the family consists of general parenting advice and moral support, financial support towards education costs, assistance towards settling down in the destination country before he or she begins to earn an income, and further financial support should the need arise. However, for some families, the support goes wider and deeper. For example, Adepoju (2008) argued that part of an African family's strategy for survival and socio-economic mobility involves the use of differential investment in education, and the selective migration of family members. The New Economics of Labour Migration (NELM) theory explains this as the family pulling resources together to invest in an individual family member, with a view to minimizing risk to the family's collective income (Massey et.al. 1993; Hagen-Zanker, 2008). A family might decide, on behalf of a child they see as capable, to pay more attention to certain subjects during his or her primary and secondary education; in this way, they will gradually guide the child to study the courses they have chosen for him or her. As the child is developing, the family will further mount subtle pressure while

the decision of which course to study at university is being made. According to respondents, this was a 'common' method for parents to use to guide their children towards studying medicine. Kemi, 26, describing how she decided to study medicine, said:

> *"I think it started when I was very young; my parents kept saying things like 'Oh doctor! Doctor!'. They would ask me to write prescriptions for them; I believe they kind of pushed me in that direction. It was already filled in my mind."*

Such subtle guidance from parents reinforces the idea of studying the course the parents want their children to follow, especially, when the children's minds are vacillating between more than one equally appealing course.

> *"I think a good reinforcement from my parents also encouraged the birth of that idea in my heart. They said, 'You look like you will do very well as a doctor', and I said, "I know that; I am smart in school, so I will give it a try"* (Toni, 26).

While this might be seen as an example of parents merely encouraging their children to aspire to study whatever they (the children) want, some students clearly interpreted it as their parents guiding them to choose courses they (the parents) want. To further reinforce their support for their children's pursuit of medical studies, parents bought textbooks and materials that emphasised biological sciences. Mabel, a 24-year old student, recalled how she became interested in studying medicine during her secondary school education:

> *"My parents got me textbooks and study materials that helped my knowledge of biology, which also helped my grasp of physiology in medical school. So, I think the support for studying medicine started from secondary school."*

Even when students have a clear picture in their minds of what they themselves want to study, parents can still influence them to change their minds to study the course they (the parents) want them to study. That was the case with Abiola, 27, who wanted to become a lawyer, and so opted for art courses, until his father intervened to sway his decision:

> *"I wanted to be a lawyer; that was what I took seriously in my secondary school days. I did history and arts, so, I was on the pathway of becoming a lawyer. But when I was in SS2 (senior secondary 2), that was when my dad prompted me, saying that law wasn't very lucrative in Nigeria; that he believed that medicine would be more lucrative for me. And I agreed with him, so I decided to switch from art class to science class. And that was how I started my pursuit."*

Other students, like Benjamin, 28, spoke of how the decision to study medicine had already been made by his parents:

> *"It was my dad who initially brought up the idea of me studying medicine. And I concurred with it. So, I will say it was a collective decision between us, as it eventually became my decision. But the person that prompted me to take that decision was my dad."*

In some cases, support for the choice of medicine by parents appears to be an example of them trying to live their dreams through their children: they had wanted to study medicine themselves, but for some reason, probably financial, had been unable to. Benjamin further commented:

> *"The thing that made up my mind for me was the fact that my dad was a scientist. He is late now; he used to talk about wanting to study medicine himself, but he couldn't due to a lack of funds. So, he impressed it on me to study medicine."*

Admitting his desire to have a medical doctor in his family, a parent described the efforts he made over the years to realise this dream, and the joy of achieving it through one of his sons.

> *"All along I had always wanted a situation where one of my children would study medicine, because, whether you like it or not medicine is a choice profession anywhere in the world. I really wanted my first son, who incidentally is also my first child, to study medicine. But unfortunately, he was not admitted to study medicine. Luckily, my last son was admitted to study medicine, and I was so glad; all the while I have been encouraging him to study medicine and to practice medicine on graduation."*

Whether by design or chance, the first support medical students and young medical graduates receive from their families towards their migration project comes in the form of the choice to study medicine at university. For a lot of the students, this decision to study medicine was taken because of *"... love for the profession, and the desire to save lives"*: the majority of the students in the schools surveyed in this study (60.7%) claimed they chose to study medicine for this reason (*Appendix 14: Summary of key survey*). However, for some (5.7%) of the students the decision was part of a long thought-out plan for the survival and socio-economic mobility of the family. For most of the students in this last group, the decision was taken by their parents, with or without their input, as part a plan towards a better socio-economic future.

This forms the beginning of an attempt by the family to insure its members against the risk of failures in the system, as explained by the NELM theory.

6.3.2 Support for migration

Having a family member living and working abroad is a major factor that influences the aspirations of medical students and young medical graduates to migrate. This was a key finding from the survey conducted in this study: nearly half (46.5%) of those with a family member abroad had a positive aspiration to migrate after graduation, compared to (11.5%) of those without a family migration history (p = 0.032) (*Table 14: Aspiration to migrate by "Family migration history" and "Practiced abroad"*.).

Table 14: Aspiration to migrate by "Family migration history" and "Practiced abroad".

		Negative n (%)	Neutral n (%)	Positive n (%)	Total n (%)
Family member abroad (P = 0.032)					
Yes		18 (11.5)	66 (42.0)	73 (46.5)	157 (100.0)
No		13 (25.0)	24 (46.2)	15 (28.8)	52 (100.0)
Missing		0 (0.0)	2 (100.0)	0 (0)	2 (100.0)
	Total	31 (14.7)	92 (43.6)	88 (41.7)	211 (100.0)
Practiced Abroad (P = 0.012)					
Yes		8 (9.1)	32 (34.8)	48 (54.5)	88 (100.0)
No		22 (18.2)	59 (48.8)	40 (33.1)	121 (100.0)
Missing		0 (0.0)	1 (50)	1 (50)	2 (100.0)
	Total	31 (14.7)	92 (43.6)	88 (41.7)	211 (100.0)

But, beyond inspiring students to migrate after graduation, having the support of a member of ones' family in the destination country helps to take care of a lot of the challenges that such a person is expected to face there while they are trying to adapt to their new situation. This support could be the difference between remaining in Nigeria or leaving it. When the family member abroad also happens to be a doctor, an even bigger advantage can be conferred, and this was also significantly (p = 0.012) associated with respondents' aspirations to migrate: over half (54.5%) of those respondents who said they had a family member who had either practised, or was still practising, medicine abroad, showed a positive aspiration to migrate (*Table 14: Aspiration to migrate by "Family migration history" and "Practiced abroad"*.), suggesting that having a family member practising abroad increases the likelihood that one would aspire to migrate abroad oneself, to train or practise after graduating as a doctor. Acknowledging the

importance of this family support, Abike, a 26-year old student who had spent four weeks in the UK on an overseas clinical posting, observed:

> *"Yes. Having a family there was a huge encouragement, because I couldn't have just sprung up and gone to another country; the presence of my sister practising there in the UK was the difference. I have noticed that that family support is very important."*

While having a family member working in the healthcare sector in a destination country is a huge advantage, just having a relative in a destination country, whether they work in the healthcare sector or not, could also confer a distinct advantage on someone intending to migrate abroad to practise. Describing the categories of students that end up migrating abroad from his institution, an official of the alumni body in one of the universities stated:

> *"The first category of those that migrate are people that have a family relation practising abroad, be it in healthcare, especially those that have a family relation in the health field. But even if your family relation is not in the health field, the fact that you have somebody, a close person in a developed country, tends to favour you thinking about going there to further your medical career."*

For most families, the first step in setting up a proper support structure for a migration project is to have a member of the family established in a destination country. Once this is achieved, that member forms the main pillar of the family's support structure in that destination country, on which the future migration projects of other family members are anchored. This family presence in the destination country reduces the cost and risk involved in migration for other members of the family (*cumulative causation*), and their immediate social network (*network theory of migration*), making it easier for the subsequent migration of those back home who may want to migrate. One of the parents interviewed in this study already had two older sons working in the US. His third son was in his final year of study at medical school and had already passed the first two stages of the USMLE. Asked what form of support his third son would require from him towards his migration project, this father replied, "*Not much: there's already a support structure there, because he has two elder brothers there in the US".* He further explained that, as the first member of his family to migrate abroad many years previously, he had suffered many difficulties and challenges which his first two sons had never had to go through, because he had started building a support structure for his family back then. Another parent explained how the presence of an established family support structure naturally

facilitates the subsequent migration of other family members: he had a son who was a practising physician in the US, who now served as a role model for a younger son, then in his final year of medical education in Nigeria.

> *"The fact is that his elder brother is an American citizen and is right now based in America. More often than not, they discuss the practice of medicine here vis-a-vis the United States of America, and for that he has been eyeing going to the US to practise upon graduation. And he has been doing everything to see that that is made possible."*

With the backbone of support of a family member abroad, families then prepare their children studying in Nigeria for migration after they graduate. These plans are usually made clear to the students, who then start preparing for their projects by sitting the qualifying exams that will allow then to practise in the destination countries of their choice, sometimes even while they are still studying for their primary medical qualifications.

> *"My dad has got me to imbibe the idea that after I finish my training in Nigeria I will go to America to continue my training. So, he has always made it clear to me that that is the option. And he has provided me with all the support I need in writing the various stages of the qualifying exams."* (Tina, 25).

Families involved in sending their children abroad to practise see migration projects as investing in their family's future, and a way of guaranteeing a steady flow of remittances when their children finally settle down and start working there. However, not everybody wants to leave Nigeria to practise abroad even after the investment of their family on their migration project. Illustrating this, Dr Chinwe, a resident doctor, told the tale of a friend who refused to toe the family line, choosing to get married instead of travelling abroad, as wished by her family:

> *"Some parents, some families, even when the student is still in the medical school they already have plans for him or her; that when you graduate you are going abroad. I have a friend, a lady, who refused to go abroad after she graduated, and she decided to get married. Her parents are still not happy with her because she decided not to go abroad."*

Understandably, her family was not happy with her, because they had invested in her, believing that when she graduated she would go abroad to continue her medical training and practice, and in due time, send remittances home to take care of her family. However, as another student

who claimed not to be interested in migrating abroad after graduation (even though his family wanted him to) noted, going abroad to practise is a lot more complicated than most of their families imagine it to be.

> *"We have discussed it, and they are still in support; that I should go abroad after graduating. I believe they do not have the full information about how seemingly difficult it may be to actually go abroad as they imagined it to be. It is not as easy as they expect it to be; it is not just about getting a visa. There are examinations to write and pass, courses to take."* (Timothy, 24).

Timothy is one of only two respondents interviewed who expressed a negative desire about migrating abroad after graduation citing the challenges of obtaining licence to practice abroad. Despite the complicated nature of the challenges that students and young medical graduates are likely to meet in their migration projects, having solid family support suffices, in most cases, for them to embark on the project. For the majority of the medical students and doctors interviewed during this study, the support of their family was the pillar on which their plans for migration were anchored; other support structures were then built around the foundation provided by this family support. Families, on the other hand, saw their involvement in international migration as a necessary investment towards a better socio-economic future for all their members.

6.4 Social connections

Social connections also serve as a support base on which to build a migration project. Just like having a family member abroad, having a close friend or colleague with whom one can personally relate in a destination country can be the pillar on which to build other support structures for migration. Such connections may have been formed in secondary school days. For example, a parent described how his son got his mind set on travelling abroad because of his friends, who started migrating from Nigeria from their secondary school days onwards, and how he (the father) had had to convince his son to study medicine before joining his friends abroad.

> *"Well, at the time he was finishing school he saw most of his friends that were moving out. His friends in secondary school all started jumping out one way or the other. So, he wanted to join the band wagon. … It is like some form of healthy competition between them; they want to see who goes first, or who goes next. And they celebrate it;*

they say, 'Oh yeah! The class of '92' now has such and such number of their members abroad'. It is like a way of measuring their group success."

Seeing friends leaving Nigeria to migrate to developed countries, especially if they make a success of their sojourn and start sending remittances home, serves as a reinforcement for the desire to migrate after graduation. But, also very importantly, retaining connections with those friends provides an added advantage, as they now serve as a support base on which medical students and young medical graduates can anchor their own migration projects, and can be relied upon for information and other support.

When the friend in the destination country is a medical colleague, it makes it even easier getting the necessary information: *"... because they have gone through the process, they are able to provide key information and links",* to professional exams, employment opportunities and other elements of the migration process. This is clearly a path for some of those students and young medical graduates who do not have a family member in their preferred destination countries; like Kareem, 26. He did not feel at any disadvantage, despite not have a family member in his preferred destination country. As he pointed out, "*Some of my immediate senior colleagues now in the UK have written and passed PLAB* [Professional and Linguistic Assessments Board]. *So, I am sure any one of them would be able to put me through when the time comes".*

Confirming the usefulness of a connection to colleagues in destination countries, Brenda, a 25-year old student, described how a friend and colleague, based in her preferred destination country, was the person, "*... helping me with the information, and trying to get what and what I would need to succeed in the exams".* Having the support of a professional colleague who has passed through the migration and settlement process can be invaluable, and it may be the pull factor in the case. Some respondents described the influence of professional colleagues urging one to *"... move over to join them abroad because they see the opportunities there and are ready to help you settle over there".*

Having a strong and functioning alumni body, that periodically brings graduates of the institution together, also helps the support structure provided by social connections. When graduates of an institution come back together under the alumni umbrella, there will be a lot of socialising, reminiscing, and sometimes, stock-taking. Occasions like this also serve as an opportunity to recount success stories, and to invite successful alumni to address key issues

affecting the institutions and the community. These occasions, therefore, provide students and young medical graduates intending to migrate with opportunities to discuss, and make further connections, with alumni in the diaspora. Discussing this, the chairperson of the alumni body of one of the institutions observed:

> *"We have this university's college of medicine alumni association, that is based in the U.K., the US, Canada, and other countries in the West. We do an annual program, where we invite members from all over the world. Most of the times what we talk about is our medical graduates who are making impact in the UK, US and other parts of the world."*

Hearing the success stories of their alumni emigres strengthens the desire of those who were already thinking of, or actually planning, to migrate. It also opens a path to the necessary support, especially if the successful migrants are colleagues, with whom they can relate personally. For example, Kehinde, a 27-year old house officer with no family members abroad, declared that the fact he was from an institution with a long history of medical migration was helpful, as it gave him the exposure and connections he needed to make his dream of training and practising abroad come true:

> *"If you just go back 5 years, you could pick at least 2, 3, or 4 ex-students that you knew personally, that have gone abroad and who have done something of note with themselves; and you think, wow, if these guys can make it, then I can possibly make it too. I think that's probably the reason why this institution has a high number of graduates practising abroad; because there's already a long history. There's a good network of people that are already out, who can help those of us who want to join them."*

The existence of strong student societies and associations, religious groups, and other voluntary organisations in the medical schools also help to provide support for migration. These bodies support students' migration aspirations by providing advice, such as career counselling among other services they render to students. For example, some students described how the only career counselling they had was from guest speakers in seminars and conferences organised by religious groups or students' associations or societies in their schools.

> *After their lectures we approach them* [guest speakers] *about our career plans and seek their advice. Being experienced Christian doctors, they advise you about the career options* […] *usually, including going abroad for further training and practice*. (Itohan, a 26-year old student)

Students particularly believed that such guest speakers not only encourage migration, but that they serve as role models for migration because "*most of them* [guest speakers] *are prominent doctors who have made it,* [... and] *been abroad at some point of their career*". The two medical schools in which interviews for this study were conducted have strong medical student associations and student union bodies. They also have various Christian and Muslim students' groups. These students' associations, unions and the various students' religious groups therefore, serve as a form of social capital that increase and support the migration aspirations of medical students and young medical graduates.

While it is a huge advantage to have the support of a family member in a destination country, the alternative of a friend or colleague, with whom one can relate personally, can serve the same function, and sometimes confers a superior advantage on individuals planning to migrate (*NELM*). These networks of friends and colleagues and other social ties and connections increase the chances of migration by reducing the cost, as well as the risks involved (Haug, 2008; Epstein, 2008). Connections through social ties, therefore, play a significant role in the system of which medical students and young medical graduates take advantage in their migration projects.

6.5 Institutional support

The support of ones' training institution is a key component in the support system that medical students and young medical graduates need for their migration projects. Without institutional support, a Nigerian-trained doctor will struggle to obtain a licence to practise anywhere in the world outside Nigeria, or to register to sit for qualifying or licensing exams overseas. This institutional support comes in both official and unofficial forms. For example, a student planning to take a foreign licensing exam will require an official confirmation of his or her status as a student of their training institution, confirmation of their competence levels, and other references. Those who have graduated need the support of the school for result verifications and issue of academic transcripts, as well as references. Although these are services that the training institutions are obligated to offer their students and graduates on

request, they are also some of the ways in which these institutions support the aspirations of these students and graduates.

Most of the staff and students interviewed in this study stated that they did not believe that their training institutions formally supported or encouraged the migration of students after graduation. For example, a head of one of the departments stated "*officially, we don not encourage migration",* and that the official position of their institution was "*we want to retain as many of our graduates as possible*". Most of the respondents also claimed not to be "*aware of any body, department or office within* [their] *institution*[s] *that support or encourage migration*". They also acknowledged, however, that the institutions *"... do not discourage migration when they are approached about the subject".* As Kid (2001) argues, behaviours and beliefs that make up the culture of a group of people are shaped and propagated by the day to day interactions of the people; in this case, the students and staff members of the institutions.

Speaking on what form of support students receive from their training institutions when they want to migrate, one professor stated, "*The school encourages them by facilitating the issuing of their transcripts early, and by writing recommendation letters for those who request them".* Such academic recommendation, and the prompt issuance of academic transcripts can assist potential migrants in taking the next step towards leaving Nigeria. Jide, 26, expressing satisfaction with the speed with which he received his transcripts and recommendations, acknowledged that the support from his school facilitated his registration for the licensing exams for the USMLE:

> *"The school is always willing to assist; lecturers support students by giving them recommendation letters, and the administrative unit helps by expediting action on their transcripts so that they can get it quickly. At least that was my experience."*

While it could be argued that Jide's experience was simply the result of the efficiency of the administrative system in the school, some students view this as one of the ways the institutions encourage students who want to migrate. Speaking about whether the schools encourage the migration of students after graduation, Kunle, 27, stated:

> *"The school sees it as a good thing. They encourage it, because when students and graduates request for their transcripts, they are always happy to help."*

Support for migration also came from some of the staff of the institutions, who, in their various interactions with students, encouraged them to take advantage of the opportunities they had for migration.

> *"I don't have a complete picture of it, but what I know is that they encourage graduates to go out there, acquire the expertise, and then come back."* (Timothy, 24)

This encouragement from staff could be unsolicited, often occurring during ward rounds or lectures, when lecturers digressed from their lectures to talk about their experiences while training abroad. Kunle, 27, commented that sometimes, "… *during ward rounds, your consultants may tell you 'When you are done here, and you have any opportunity to go and do your residency abroad, I will advise you to do that, and then come back'".*

At other times, however, support for migration is more direct. Students described how younger consultants, to whom they appeared to be closer than to the older consultants, encouraged them to "*... go out, develop themselves, and come back to Nigeria*". So, students see the advice they receive during interactions with faculty staff as a direct endorsement of migration. For example, Tolu, a 26-year old student, observed, "*What I can say about the few faculty staff I have interacted with; the advice they always give medical students, and even young doctors, is to go abroad and practise*".

Some of this staff support for migration after graduation appears to be the result of their own frustration with the medical training system in Nigeria: hence the advice to students to go abroad, complete their training there, and then return to Nigeria. Speaking on the support he had received from staff, another student described a similar experience to that of Tolu, explaining that the younger lecturers and consultants tended to be very supportive of migration.

> *"They were in the affirmative, that if I have the opportunity …, that if I have a plan, I should start working towards it right away. The younger consultants whom I have access to encourage it."* (Benjamin, 28)

According to some resident doctors, support from younger consultants for migration after graduation could be because "*... most of these young consultants, up until recently, were resident doctors having their training alongside these students and house officers*"; up until they completed their training and were then appointed as consultants. This makes them more accessible to the students to go to for advice. One of these 'young consultants' admitted to

giving students who sought his counsel on migration advice that could be taken as encouraging them to migrate; because he does not discourage it:

> *"Actually, on a personal ground I tell them 'if you think you want to leave this country decide immediately and leave. Don't be equivocal about it so that you don't lose time'. I don't speak against it."*

Another consultant used an experience with a colleague to describe the kind of advice he and his colleagues usually give to students who seek their advice on migration. He explained that a lot of the students had already made up their minds, and "... *seeing the hunger in some of them when they raise such questions",* he felt he had no choice but to encourage them.

> *"I happened to be in my colleague's office when a student came in, and they had that discussion; I just sat back and watched. It just played out exactly the way I felt. He told her 'Sure, if you want just start. I have some materials I will give you. Just make sure you start working immediately so that you can move and not waste time here'".*

Staff followed-up their advice to the students in support of migration by providing them with study materials to help them prepare for overseas qualifying exams, and with whatever links or connections they may have had themselves, that they felt might be of value to the migration projects of the students. Direct support for migration also came from resident doctors, some of whom, just like the young consultants, advise students, and provide whatever study materials they feel may be useful. Some students thought that some of the resident doctors, "... *equally want to go out",* and consequently provided useful information about which exams to register for, and how to proceed, *"... because they have either gone through it all, or are going through it now".*

6.5.1 Exchange programmes

Another institutional support structure that students take advantage of in their migration projects is participation in exchange programmes between their training institutions and medical training institutions in destination countries. Although the purpose of such training programmes is to expose students to a variety of practice environments during their training and development, some students see them as a step towards their migration. Where such collaboration with overseas training institutions exists, some of the students who are considering migration after graduation take part in those programmes in order to *"... experience*

how it is on the other side". However, as Massey et.al (1994: 1498) argued, such an act of migration (even though temporary) "... generates a set of irreversible changes in individual motivations, social structures and cultural values, that alter the context within which future migration decisions are made". Taking part in exchange programmes can alter or strengthen the way a student views migration; and some students confirmed this when they spoke of how their experience of participating in overseas clinical postings *"... reinforced the earlier notion"* they had had about migrating abroad to practise after graduation.

> *"I went and saw the way things are, and then said to myself, 'This is where I want to be, not Nigeria'."* (Toni, 26).

Some of these students explained that seeing some of the facilities they had only read or heard of from textbooks or lecturers, and witnessing clinical procedures they had never had the opportunity to witness during their training in Nigeria, convinced them that they *"...were not in the right place"* for their medical training. Others had previously intended to practise in Nigeria after graduation, but after participating in an exchange programme, had returned home with a different mindset: that they needed a better training environment.

> *"I was OK with the quality of medical education here, but that was before I went outside and saw there was something better."* (Kemi, 28).

Even if students like Kemi remain to train or practice in Nigeria after their graduation, the context within which they will make future decisions on migration will be influenced by their brief experience of clinical training and practice abroad. People like her, recent 'converts' to the group that aspires to migrate, often become strong advocates of migration, as they describe what they have experienced that has led to their change of mind. One house officer who participated in the overseas exchange programme thought that the experience had '*changed*' his perspective, and he now advised any student seeking his advice to "... *go and see how it is in other countries",* before deciding to start a residency training programme in Nigeria. Like many others who had participated in an overseas clinical posting, his mind was now set on leaving Nigeria, and he thought *"... it's only a matter of time"* before he left. The influence of these overseas exchange programmes on the way the participants in the programme viewed the migration of doctors from Nigeria, and their own aspirations to migrate, is profound; you could tell this from the way they compared the system in Nigeria to the one they had experienced during their participation in the programme.

6.5.2 "A thing of pride"

Medical migration is generally regarded as a loss to the healthcare system in source countries, especially when such migration is from a low-income country struggling to establish a properly functioning healthcare system. Most of this study's participants agreed that medical migration was an 'unfortunate loss' that weakened the healthcare system, and Nigeria in general. Most wanted something to be done about it, and would support any policy or programme that would help to retain doctors in Nigeria. Despite the truth of this, some respondents also viewed medical migration from their training institutions as a thing of pride, that their "... *products* [the graduates] *are able to hold their own anywhere they find themselves".* So, on the one hand it bothers them that Nigeria continues to lose doctors to the developed world through migration, but on the other, it serves to reassure them of the good standard of training that they have received, or are receiving.

> *"Well, you can always look at things from both sides of the coin. On the one hand, you may say there is something driving them from here. Then again you look at it from the other angle; that most of them who go out there are doing well, and that comes back to say that the school here actually trained them well."* (Dr Chinedun, senior registrar).

This forms one of the 'joys' of the institutions, when they hear that their graduates are *"... doing well and making impact abroad"*. Expressing the same pride in their graduates doing well outside Nigeria, Dr Adebambo, 52, believed that the platform given to these graduates by his institution, "... *instilled knowledge and confidence*" in them to go out and prove that they were at the "... *same level of competence"* as anybody trained anywhere.

> *"As they excel wherever they are, surely the reference will be made to 'whoever taught, whoever prepared them really prepared them well' "*(Dr Adebambo, 52).

So, even though some of them may not directly encourage the migration of their graduates, the staff and the institutions expect their graduates to be '*ambassadors of the institutions'* when they leave the country. Consequently, any success recorded by their graduates is taken as a thing of pride by the staff and the institutions.

Students also felt this pride; that the success of their medical school alumni was a pointer to the fact their training institutions were giving them *"... a good standard of education to compete abroad".* Some even believed that the reputation, built over the years as a result of the

success of their graduates, would give them an advantage, when they left Nigeria, over students from other Nigerian medical schools. Although such an advantage was hard to prove, the fact that some students and staff believed that it existed, cemented the reputation of the institutions in the minds of students. For example, Mike, a 25-year old student said that he chose to study at his medical school *"... because of its reputation for excellence",* explaining further that the institutions' reputation would give him an edge when he eventually left Nigeria:

> *"In fact, a lot of our consultants tell us that some universities in the US and Canada, as far as you are a medical graduate coming from Nigeria, once you mention the name of this university there's this kind of preference they give you."*

It is this belief, that schools and hospitals abroad *"... open their doors"* to graduates from these institutions, because they recognise the quantity and quality of the work put in by medical schools in Nigeria to train their students, that is the primary reason staff and students see the migration of their graduates as a thing of pride. Each success story of a graduate serves to reinforce this belief and pride; and because such success stories revalidate them, the staff and the institutions are willing to support any of their graduates who want to migrate.

6.6 The support system in place in the universities

The systems supporting migration plans, which students intending to migrate take advantage of, do not operate through a smooth, deliberately organised structure; in the main, they are normal institutional or social structures put in place to assist and support students, family, and friends, in their normal ordinary pursuits in training and life. And because they are not formally organised, how individuals access these support structures depends on a variety of factors. For example, a medical student intending to migrate may not have any family members abroad to support him, and will have to rely more on support from colleagues, his social connections, and whatever institutional support is available. Another might have a family member abroad who has little or no information about medical licensure and practice in the destination country, such that he or she can only provide very limited support professionally. On the other hand, a student, with the support of family in Nigeria, may have taken advantage of the support of his institution, and participated in an overseas exchange programme; all he needs now, for subsequent migration, is similar support from family, and recommendations from his institution. However, in most cases, students and young medical graduates will utilise a combination of the supports available to them, to fulfil their dreams of migrating abroad.

The drivers of migration, and the support structures, utilised by students and medical graduates from the two institutions in the second part of this study, are quite different. While family and social support structures appear to be the main drivers of migration in one, institutional support structures appear to be much more significant in the other and form the difference as the most significant driver of migration.

6.6.1 The University of Benin

Located in the ancient city of Benin in the South-South geopolitical region of Nigeria, the university was founded in 1975 by the Federal Government of Nigeria. The university has a history of its medical graduates migrating abroad to practise and has consistently featured as one of the topmost Nigerian universities in that respect (Hagopian et al. 2005; Tankwanchi et al. 2013). About two-thirds (63.0%) of the medical students of this university surveyed by this study had a positive family migration history (14.8% of them had personally been abroad at some point prior to the study) (*Table 15: Summary table; UI vs UNIBEN*). About two-thirds (64.8%) also viewed the international migration of doctors positively, while over a third (37.0%) of the students aspired to migrate after graduation (as stated earlier, respondents' views on migration, and their aspirations to migrate, were assessed by a summated 8-item Likert group of questions; *Appendix 4: Questionnaire*).

Table 15: Summary table; UI vs UNIBEN

Variable	UI	UNIBEN
Personal migration history	25.0% positive	14.8% positive
Family migration history	86.5% positive	63.0% positive
Family member practised abroad	63.5% positive	31.5% positive
Views on migration	73.1% positive	64.8% positive
Aspiration to migrate	61.5% positive	37.0% positive

Institutional support structures for the migration of students at this university are present and consist of support from lecturers writing recommendation letters on request, giving advice supporting migration to students, and supplying study materials towards qualifying exams. The institution will verify results when requested to do so and will issue transcripts to support the applications of students and graduates. However, beyond this, institutional support for migration is weak: the medical school has no existing collaborations with medical institutions

or facilities abroad, to which they could send students for clinical exposure overseas. The medical school also lacks an organised body of alumni, even though the university as a whole has an alumni body. As a result, the institutional structures supporting migration, though present, appear weak as drivers of migration from this institution.

The main drivers of the migration of medical graduates from this university appear to be support from family and social connections. Starting with the socio-economic life of the people of the city: many families in the city have come to rely on remittances from their members working in Europe, North America and other places abroad, as a result of a downturn in the Nigerian economy since the 1980s (The Punch News online, June 17, 2017). Consequently, having family members abroad, who will ensure a regular flow of remittances home, has become an essential part of how many families plan or strategize to ensure their social and financial survival in the city: in this way they insure themselves against risks to their collective income (*NELM*). Respondents described how this is a "*... common thing among the people living in this city and state",* with about two-thirds (63.0%) of the medical students surveyed in the institution saying that they had a family member working abroad. Acknowledging this, one staff member of the university observed that families supported migration because they could point to other families whose economic fortunes were transformed after sending one or more members abroad:

> *"Yeah. Benin is peculiar, in the sense that the people here have this mentality of '... if I don't have somebody abroad, maybe my family has not started". So, families here support them to leave."*

Explaining how common it is for people from the city of Benin to migrate abroad to work, a parent described how seeing friends and neighbours migrating abroad, and then sending money back home to their families, affected his son, who then wanted to join his friends and neighbours abroad. His son was about to graduate from medical school, and he (the father) believe that with a medical degree, his son was "*... better prepared, unlike some of his friends and neighbours that left after secondary school education":*

> *"Let me use the word 'common': it is a very common thing here in Benin; going out is almost an essential ingredient for every family. It doesn't matter at what level."*

Alluding to how pervasive migrating abroad is in the community, a professor in the university whose son was preparing to leave Nigeria after graduation, explained that it was not necessary to discuss going abroad with his son, because, "*... anybody who grew up around Benin city must ordinarily have come across the influence of working abroad*", and that most students, like his son, would choose to go abroad if they had the chance.

> *"I know from my experience here, that the average student here after graduating, he or she would rather go abroad to practise. That is how it is here, especially, here in Benin; they all want to go abroad. It is the general thing here."*

As more and more people migrate from this institution and the city or communities around it, the network connections of friends and colleagues expands, and becomes more and more relevant as a driver of migration from this institution (*Network theory; Cumulative causation*). These network connections also include the presence and influences of strong medical students' body and religious societies. For example, some students in this institution spoke of the influence of the Nigerian Christian Medical and Dental Students Association (NCMDSA), (an umbrella body of all Christian students from various denominations) and other societies in inviting prominent medical professionals to address and counsel students on various issues (including career development) during their seminars and conferences. They described some of these professionals as their "*patrons*" who have had the "[…] *experience of training and practicing abroad*". In most cases students believed the associations and societies seek these professionals based on having the "*experience*" of training and practising abroad just so they can get counselling on training and practicing abroad in the future. These students' societies and religious associations therefore serve as another important social capital that students can draw on in working towards and fulfilling their migration aspirations.

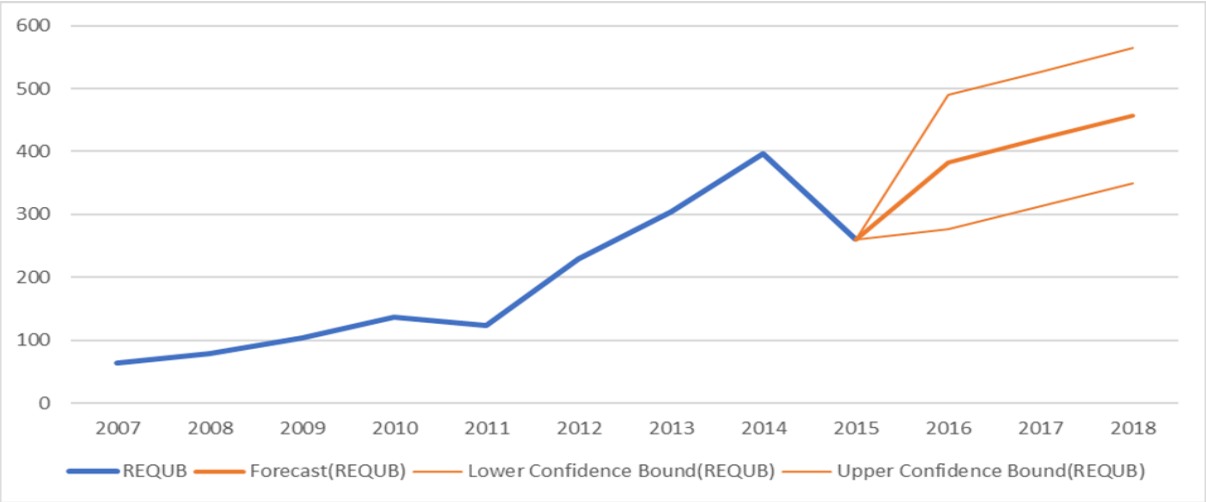
> *"It might not be their [professionals] intentions, but the discussions [counselling] eventually end up with advice on how to prepare for further training and practicing overseas."* (Kome, 24-year old student)

While most students and graduates of the University of Benin can count on the support of the institution for result verification and the issuance of transcripts and references, the institutional support they can expect to get is limited. They have to rely more on themselves, their network of social connections, and especially, the support of their family, to achieve their dream of migrating abroad. The main drivers of migration from this institution, therefore, are the family and social connections of the intending migrant.

Table 16: Graduation numbers vs requests for ECFMG verification

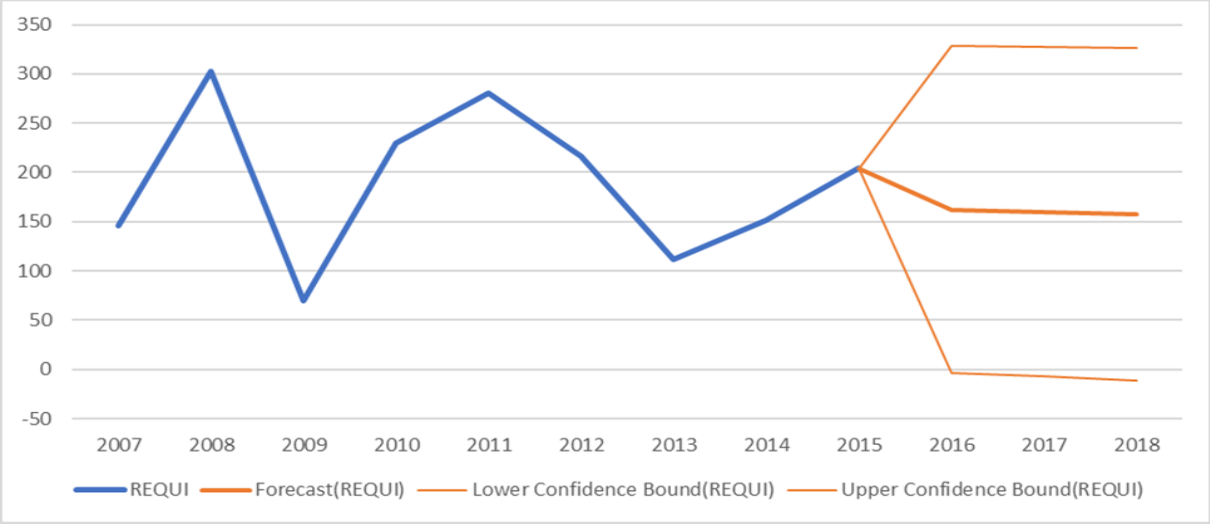
Year	University of Ibadan		University of Benin	
	Graduation	Request	Graduation	Request
2015	149	204	103	260
2014	137	151	108	396
2013	140	112	106	303
2012	131	216	96	229
2011	92	281	88	124
2010	139	230	92	137
2009	152	70	79	103
2008	122	303	84	78
2007	182	146	81	64

Figure 5: Historic time-based data prediction of ECFMG verification request: University of Benin



REQUB - Request for result verification, university of Benin

Figure 6: Historic time-based data prediction of ECFMG verification request: University of Ibadan



REQUI - Request for result verification, university of Ibadan

The fact that institutional support for international migration is weak in this medical school however, does not necessarily affect the migration aspirations of students and graduates of this school: Table 16 (*Graduation numbers vs requests for ECFMG verification*) shows how, over the years, medical students and graduates from this medical school are not only catching up with those from UI in their intentions to migrate, but actually overtaking them. Figure 5 (*Historic time-based data prediction of ECFMG verification request: University of Benin*) on the other hand, shows a forecast based on historic data on ECFMG request (*Table 16*) from this medical school: it predicts a continuing rise in the number of request from this institution between 2016 and 2018; same time as the number of request from the university of Ibadan (UI) is predicted to decrease (*Figure 6*: *Historic time-based data prediction of ECFMG verification request: University of Ibadan).*

6.6.2 The University of Ibadan

The University of Ibadan is Nigeria's premier university: established by the British colonial masters in 1948, it is in the city of Ibadan in the South-West geopolitical region of Nigeria.

Medical education in Nigeria started here, and over the years it has consistently been reported as the topmost medical school in Nigeria (West Africa) with the highest number of medical graduates practising in Europe and North America (Hagopian et al. 2005; Tankwanchi et al. 2013). In this study, this medical school scored higher with regard to all the factors characteristic of a community with a culture of migration (family migration history, views on migration and aspirations to migrate) than any other medical school (*Table 12: Summary table by institutions*).

The school's long history of its graduates practising abroad (especially in the UK) is probably because it was established as a foreign branch of the London Medical School by the British: for years, medical students from the university completed their medical training by carrying out clinical rotations in London (Brown (1961), thus establishing a historic relationship of clinical and academic collaboration between the institution and London medical schools.

However, even after the cessation of these training arrangements, the university has maintained some forms of collaboration with institutions in the UK and elsewhere in the world, that involve an exchange of students and doctors in training (residency). Every year, medical students from this institution, who can afford it, take advantage of these exchange programmes as part of their training, in order to have an '*overseas training experience'.* These overseas exchange programmes may account for the reason that a higher proportion of students from this institution (25%) have a positive personal migration history, compared with students from the other schools surveyed, as the students take advantage of these programmes to have the migration experience. A student who participated in one of these exchange programmes described how she followed the advice of a colleague, who had earlier taken advantage of the support that her school offers:

> *"I am not sure if it is an official collaboration between this institution and that hospital, but the hospital is used to the fact that a lot of our students have gone there regularly over the years."*

Whether the collaboration is official or not, the fact that medical students from this university regularly receive clinical exposure from that particular hospital (as well as from other hospitals in the UK, and elsewhere) tells of the level of support they get from their training institution in Nigeria. While explaining that he also was not sure if such collaborations were official, a lecturer in the medical school stated, *"It is one of the supports that students and doctors can*

expect to get for choosing a prestigious training institution with a history", as several institutions abroad have, over the years, taken students from the school for a short training placement.

> *"There is an overseas development and training scheme (ODTS) that allows some people doing residency, and some medical students to get training outside the country for a period. It is part of what this institution offers to its students, and also part of its attraction to those who want medical training in Nigeria."*

Awareness of the availability of such support from the institution, through these exchange programmes, also appeared to be an attraction for some students and young medical graduates. For example, a resident doctor explained that this was a factor in choosing the medical school by some residents, stating "*... a lot of us came into this medical school because of its history and rating: among the resident doctors there's a provision where as you go further in your residency training you can go to the US or U.K. for parts of your training".*

Students at this institution knew that it had support structures that they could count on, in addition to the usual issuance of transcripts and recommendation letters from their lecturers. Also, unlike the University of Benin, this university has a strong medical alumni body, with branches in the US and Canada in North America, and in the UK and other European countries, that serves to bring graduates together at the medical school every year. According to both staff and students, maintaining a continuing contact with their alumni in the diaspora *"... gives them the opportunity to contribute to the growth and development of their alma mater",* and gives medical students the opportunity to "*... meet and interact with those who have passed through this institution, and are doing well professionally, wherever they are*". Having the opportunity to meet with colleagues who have graduated, migrated, and are practising abroad, provides them with the chance of having the support of such colleagues: advice and counselling on migration, study materials, and networking.

> *"During these alumni association meetings, naturally, questions on migration and practice abroad support come up for discussions."* (Dr Chinwe, a resident doctor).

Every year, the medical college alumni body holds at least one major event to mark the 'Founders' Day' and to *"... celebrate the successes of alumni"*. During these events, lectures and seminars are held; among those delivering lectures and making presentations are successful alumni emigres.

> *"There are career talks, but almost always, one of the major topics of the lectures is on migration and how to practise abroad."* (Dr Chinwe, resident doctor).

The presence of a functioning medical school alumni body also means students of this institution have a body they can go to for advice, and to source the information they need as part of their preparations for migration. Family support for migration also appears to be significant in this institution: 86.5% of the medical students surveyed in this institution had a positive family migration history (*Table 15: Summary table; UI vs UNIBEN*). The institution also has strong medical students' associations (the University of Ibadan Medical Student Association) and Christian and Muslim medical students' societies. However, their roles in the migration culture appear to be less prominent especially when compared to the role similar bodies play in the medical school of University of Benin.

Although students from this medical school scored higher on their family migration history (86.5% for the university of Ibadan: 63.0% for the University of Benin), institutional support appears to play a much more prominent role in this school than at the University of Benin, where institutional support appears to be weak. Consequently, the drivers of migration from this university appear to be a combination of institutional, family and social support.

6.7 Conclusion

Migrating from Nigeria to a foreign country is a major project for those intending to migrate. It takes serious planning, and a lot of resources to execute. It also requires a lot of support to make it happen. While the evidence from this study shows that none of the medical training institutions has a formal organised body that supports the migration of students or graduates, the day to day interactions of the students, medical graduates, and staff members of the institutions, shape and propagate their cultural behaviours and beliefs (Kid, 2001). The evidence from this study shows behaviours and beliefs in the institutions that support the international migration of doctors. The system that supports the international migration of doctors from these institutions involves a loose combination of institutional support, support from family, and support from social connections. How these operate depends on the individuals involved and the institutions attended. These structures support the migration of doctors from Nigeria for different reasons. The support of the Nigerian family for, and their involvement in, international migration is principally a way of diversifying the family's sources of income; remittances from abroad serve as a form of insurance, mitigating and minimising

the effects of any loss of income because of failure in the system in Nigeria. The benefits to the families are both absolute (a better income) and relative (improvement in socio-economic status, relative to neighbours), as described by the *NELM*. Institutional support for the international migration of doctors, on the other hand, is for a different reason: medical training Institutions and their staff members support the international migration of their students and graduates, because they see the success of their alumni as a validation of the 'good job' they are doing, and so the migration of their graduates is '*a thing of pride*' to them, despite the consequences to the healthcare system in Nigeria. Some staff, however, encourage the international migration of doctors because they see the dysfunction in the Nigerian medical education and healthcare systems: they want young medical graduates to leave Nigeria to develop themselves, in terms of further training, and then to return home to help develop the healthcare system.

The social connection structures that support international migration from Nigerian medical schools result from the long history of migration from these institutions: consequently, the cost and risks associated with this migration have been reduced, which increases the likelihood of further migration by the graduates of these institutions (*Network theory; Cumulative causation*). Graduates of these institutions will therefore, continue to migrate abroad, and to dominate the list of international medical graduates from Sub Saharan Africa practising abroad.

CHAPTER 7

DISCUSSION AND CONCLUSION

7.1 Introduction

The main aim of this thesis was to examine the culture of medical migration in medical schools in Nigeria, and the role it plays in the aspiration of medical students to migrate after graduation. To achieve this goal, the first objective I set out to accomplish was to examine attitudes and intentions to migrate among medical students in Nigerian medical schools. A survey was undertaken to determine the prevailing 'culture of migration' in the medical schools, by assessing the family migration history of final year medical students, their views on the migration of doctors from Nigeria, and their own aspirations to migrate after graduation. The survey also helped to point me in the direction of schools showing compelling evidence of attitudes characteristic of a culture that supports migration. This study's second objective was to understand how medical education in Nigeria influences the aspiration of medical students to migrate from Nigeria after graduation. Through a combination of different methods of data collection and analysis, this study established how respondents' perceptions of the quality of medical education in Nigeria influenced their views on the migration of doctors from Nigeria, and their own aspirations to migrate. This study found that respondents perceived medical education in Nigeria as deficient and inadequate, and that this perception is a major factor in why students and young medical graduates aspire to migrate from Nigeria to countries where they believe they can access better training and practice. The study's third objective was to understand how familial and social influences interact with structural factors in Nigerian medical schools to affect the culture of migration present in these schools. By studying how this culture of migration is perpetuated, this study determined how students take advantage of a combination of support from their families, their social networks of friends and colleagues, and from their training institutions, to advance their migration projects. In particular, this study shows a direct replication of findings with regard to the conditions, prevailing migration habits, and support structures for migration, existing in both medical institutions.

7.2 The culture of migration in Nigerian medical schools

The idea of a culture of migration, as described by Massey et al. (1993: 452), relates to a situation where, 'as migration grows in prevalence within a community, it changes values and cultural perceptions in ways that increase the probability of future migration'. The culture of

migration in a community, therefore, flows directly from the community's migration history, and shows in the attitudes of its members towards migration, the way the community views migration, and the aspiration of members of the community to migrate. The idea of a culture of migration in a community also introduces the influence of the family and other larger units (network of friends, colleagues), as cultural values that support international migration are mainly transmitted through the family and other networks (Kandel and Massey, 2002). The existence of a culture of migration therefore, follows the postulations of the new economics of labour migration theory; which sees international migration as a product of the decision of a family or household to minimise risk to their collective income. Findings from this study of medical schools (the communities) and their migration culture, taken together, reveal attitudes that support migration, and so increase the probability of future migration (*Table 12: Summary table by institutions*): nearly three-quarters (74.4%) of the study's respondents had a positive family migration history, their views on migration were mostly (63.5%) positive, while close to half (41.7%) of all the respondents aspired to migrate after graduation. The evidence from this study thus suggests attitudes and values that are characteristic of the existence of a culture of migration in these medical schools when taken together. The generalised interpretation will then be that there is a culture of migration in Nigerian medical schools. In addition to the variables (family migration history, views on migration and aspirations to migrate) assessed by the survey, attitudes that support the existence of a culture of migration showed in the beliefs of the study's respondents: that the system in Nigeria is not good enough to meet their ambitions, and the belief that what they want is outside Nigeria; that they can only attain their professional potential and aspirations if they leave Nigeria for another society that will offer them the chance to fulfil their dreams. It showed in the plans they were making for their future; the fact that their plans for life after graduation were to develop themselves further beyond the shores of Nigeria; the fact that while they were registering for foreign qualifying exams, sitting for these exams, and passing the various stages of these exams, they were neglecting to register for the primary exams that would qualify them for residency training programmes in Nigeria. Their preference for international migration, and failure to connect with and take advantage of local opportunities is one of the characteristics of habits that support existence of a culture of migration in a community (Kandel and Massey, 2002; Horváth, 2008). Evidence of this culture of migration also showed in the fact that some of the students assumed and expected that they would be training or practising abroad at some point in the coming years of their professional career. Lastly, it showed in the fact that some students regarded those *not* harbouring plans to migrate after graduation as not being professionally ambitious.

Kid (2001) argued that what constitutes the culture of a community is shaped and propagated by the day-to-day activities of members of that community as they interact among themselves and with others. In this study for example, such day-to-day activities included discussions amongst students, of migrating abroad to train or practice as part of the options for their professional future; lecturers selectively recounting to students during lectures and clinical ward rounds about their amazing experiences studying or practising abroad; and in the kind of advice and counselling students receive when they seek advice on their post-graduate career plans from staff. The long history of international migration from the institutions, and the presence of diaspora alumni bodies (*Network theory*) also means the risks and cost involved in the future migration of graduates from the institutions have been lowered (*Cumulative causation*); thereby helping to perpetuate a migration culture. The culture of migration is also perpetuated by the support students get from their training institutions, as part of their normal training. For example, participation of students and staff in exchange programmes with overseas medical training institutions (*Migration systems theory*); the issuance of transcripts and recommendation letters in support of their applications for overseas qualifying exams. Families also help to perpetuate this culture by their various influences on family members who are either medical doctors, or are studying medicine (*NELM*): by suggesting medicine as a career choice, and which training institutions to study at, as well as supporting migration after graduation.

However, a look at the individual schools in the study presents a different picture (*Table 12: Summary table by institutions*). For example, in one of the medical schools (the University of Nigeria), less than half (42.0%) of the students viewed the migration of doctors positively, while less than a third (28.0%) showed a positive aspiration to migrate from Nigeria after graduation. This does not indicate attitudes that are characteristic of a culture that supports migration. Again, with regard to their aspirations to migrate; in only one of the four schools surveyed (the University of Ibadan) did more than half of the medical students (61.5 %) show a positive aspiration to migrate after graduation; in the other three schools, this figure was only about a third. So, taken individually, the picture is one of some medical schools exhibiting attitudes characteristic of a culture of migration, while the attitudes shown in others do not necessarily support the existence of such a culture

While the medical school of the University of Nigeria (UNN) is an example of a medical school with characteristics that do not support a culture of migration, the characteristics of the University of Ibadan (UI) medical school do support such a culture: well over three-quarters (86.5%) of the medical students have a positive family migration history, almost three-quarters (73.1%) have a positive view of the migration of doctors, while just under two-thirds (61.5%) showed a positive aspiration to migrate after graduation. This medical school has a long history of the migration of its graduates, probably a result of its close association with medical schools in colonial Britain, having been established as a foreign campus of the London Medical School; but also, because the school has strong institutional structures that support the international migration of its graduates; clinical exchange programmes with foreign medical institutions, and a strong alumni body. Both its long history of migration and its strong institutional support mean a reduction in the cost and risks involved in international migration for its students and graduates (*cumulative causation*); consequently, the probability of migration among the graduates from this medical school is higher than that among the graduates of other medical schools. Its age, size and capacity are also contributory factors to this history and culture of migration: as the oldest and largest medical school in Nigeria, it has been producing larger numbers of medical graduates for a longer period of time than any other medical school in the country. The other two medical schools (the University of Benin (UNIBEN) and the University of Jos (UNIJOS)) have characteristics that fall somewhere between those of UI and UNN. What this finding shows is that, while the failures in the systems (as experienced by Nigerians) push individuals and families to engage in international migration (amongst other activities) as a way of insuring and protecting themselves from risks to their collective incomes as postulated by the NELM theory, migration as an alternative only becomes cultural when there are clear and strong supporting structures that such individuals and families can take advantage of. Consequently, institutions with strong structures supporting migration (for example, UI) show strong evidence of characteristics that support the existence of a culture of migration, while others show a varying degree of evidence of a culture of migration depending on the strength of the support structures for migration; thus, resulting in different cultures of migrations.

While the UI medical school has the strongest characteristics of a culture supporting migration, the findings from this study show that other medical schools are not far behind, and some data suggest that they might be catching up with UI in certain areas. A good example of this is in the aspirations of medical students to migrate after graduation. As shown in Figure 4 and Table 16 (*Graduation numbers vs requests for ECFMG verification*) and as explained in Section 5.5.3

(*Request for ECFMG result verification*), juxtaposing graduation numbers against the number of requests for verification of status among applicants from UI and UNIBEN, for each year between 2007 and 2015, reveals an emerging pattern: using these requests from ECFMG as a proxy for the migration intentions of these applicants, the data shows that medical students and graduates from some of the other medical schools in Nigeria are not only catching up with those from UI in their intentions to migrate, but in some cases are actually overtaking them. A historic time-based data forecast of request for result and status (ECFMG) verifications from both institutions (*Figure 5* & *Figure 6*) predicts a decrease in the number of request from UI between 2016 and 2018; the same forecast predicts an increase in the number of request from UNIBEN in the same time period. It is possible that the main reason medical graduates from UI still dominate the number of international medical graduates (IMG) from Nigeria (and Africa) practising in the US and in other destination countries, (as reported by Hagopian et al. 2005, and Tankwanchi et al. 2013), is because of the institutional support structures in place at UI, and their long history of international migration, which reduces the cost and risks of migration for their graduates.

Again, while students and young medical graduates are applying and registering for the exams which will qualify them to practise overseas, they neglect to apply for similar local opportunities, because they have made up their minds to migrate. Their preference for international migration, and failure to connect with, and take advantage of, local opportunities, is one of the characteristics of habits that support the existence of a culture of migration in a community (Kandel and Massey, 2002; Horváth, 2008). The evidence of this culture might not be strong in some of the medical schools in Nigeria; however, it seems to be expanding. The longer dissatisfaction with the general situation in Nigeria persists, the more medical students and medical doctors feel that the Nigerian medical education and healthcare systems are inadequate to meet their training and practice needs and aspirations, the more this culture of migration will spread; eventually involving even medical schools which currently show no evidence of the habits characteristic of a culture of migration.

7.3 Research contribution

The first contribution of this research to knowledge is in providing empirical evidence of the existence of a culture of migration in some of the medical schools in Nigeria. As explained earlier (*Section 1.2.1: The culture of migration in Nigerian medical schools*), the conclusions

by Hagopian et al. (2005): that there was a culture of migration in Nigerian medical schools, based on the evidence of their study, raised a number of questions. For example, can their findings from those particular schools be generalised to other medical schools, allowing the conclusion that a culture of migration exists in Nigerian medical schools in general? The evidence from this study suggests the existence of features characteristic of a culture of migration in the medical schools studied. However, the strength of this evidence appears to vary between schools; while some have characteristics that clearly support the existence of such a culture, others do not. This implies that graduates from schools with strong evidence of this culture are much more likely to be lost from the Nigerian healthcare system, through international migration, than graduates from the schools which do not indicate the presence of this culture.

Another important contribution of this study is the development of a framework for assessing evidence of this culture of migration in medical schools. This research built on work done by other researchers (Kandel and Massey, 2002; Horvath, 2008), and developed an analytic framework for looking at the prevailing cultural values and behaviours in Nigerian medical schools. This framework argues that a culture of migration is characterised by a positive attitude towards migration among students and staff of the institutions, and a high degree of aspiration to migrate after graduation, in addition to a positive family migration history. Consequently, assessing the views of medical students on migration, their aspirations to migrate after graduation, and their family migration history, will reveal the prevailing culture in their medical school with respect to international migration. Using this framework, this research makes the important contribution of describing what makes up the culture of migration in Nigerian medical schools, how it operates, and how it is propagated.

Finally, this research contributes to academic works and knowledge on the loss of human resources for health from Nigeria, through international migration; providing an understanding of one of the lesser known ‘push factors’ of international migration from Nigeria, that can aid policy makers in designing more efficient schemes aimed at the retention of doctors in the country. By studying and describing the migration culture in Nigerian medical schools, this research contributes to the growing body of literature and discussion on medical brain-drain from Sub-Saharan Africa.

7.4 Reflections on this study

7.4.1 My own positioning and influence on the research

As stated earlier in section 3.3, my background and experience as a Nigerian health professional and academic influenced a lot of the decisions and outcomes in this study. For example, working in the health sector in Nigeria had exposed me to the effects of medical brain-drain on staff levels and staff productivity in hospitals, and some of the other issues raised by this study's participants. My background also meant that I had a fairly good idea of where and who to approach in the schools I visited, what information to request, and generally how to navigate through the schools. However, in a position like that one disadvantage is the assumption of knowledge and understanding of the key issues related to the subject under study, a situation that can introduce sloppiness in both data collection and analysis, and the whole research. For example, the issue of some professors and consultants talking down at resident doctors in the presence of students and patients during ward rounds not only happened when I was in medical school, as students we also assumed that it was part of the practice of training doctors. So, my past experience of being a medical student meant I was familiar with the hierarchical power relations within this setting. This made me empathise with students' complaints about being 'talked down' to by their seniors during training, but also less likely to see this as unusual or problematic. Same could also be said about the complaints by students about the state of their training facilities (both at the universities and the teaching hospitals) and the frequent industrial actions by university and hospital staff; again, while my experience may have made me to empathise with them, I was less likely to see these as unusual having been trained in the system myself. On the other hand, having experienced issues like the poor remunerations of doctors, and the other inadequacies in Nigeria (poor social security, power failures, and the dissatisfactions with general system in Nigeria) that this study's participants complained about, one was much more likely to over emphasise how these issues played into pushing Nigerian medical students and medical doctors into international migration.

While being a Nigerian medical school graduate studying abroad clearly helped in giving me access to some of the schools and study participants, I also understand that this might have had some effects on some of the study participants, especially those with desires of travelling abroad at some point in the future; it is possible that some of them may have seen me as a role model, and also a source of some information on going abroad. However, most of the students that I interacted with already had their sources of influence and information on migration. My

presence in the field studying migration from the medical schools may also have influenced more discussion of migration amongst the students, some of whom acknowledged that, even though discussing migration had become more frequent as they approached graduation, they had not had the chance to actually discuss it openly (as they were doing with me); discussing international migration from their institution with me may have brought the issue of migration as a post-graduation career option to the front for some of these students, while for others, it might have reinforced their migration aspirations.

Finally, my experience of medical education in Nigeria helped in both interpreting and understating the answers provided by my participants. For example, when students talked about 'hierarchy' among staff my experience of studying in Nigerian medical school made me to understand that it was their way of describing the poor rapport between senior and junior academic and clinical staff (even though I had to probe further just to be sure that that was exactly what they had in mind). Discussing this same issue with staff also required tact and some level of diplomacy, especially when discussing with the senior staff; my experience of medical school education in Nigeria taught me how to navigate such discussions without appearing to put staff on the defensive.

7.4.2 The experiences of this study's participants

At the heart of the experiences of the respondents in this study is the desire to improve their lives and those of their families. It was this desire that prompted them to enrol to study medicine in the first place. Completing their medical school training guarantees a certain social level and quality of life even in Nigeria; a medical doctor will enjoy, at a minimum, the life and social status of a middle-class citizen. This is good enough for the majority of medical students who started their journey towards becoming doctors with this dream in their minds: over half (58.3 %) the survey respondents did not aspire to migrate after graduation. Others, however, had very lofty ideas about the meaning of being a doctor; an idea of grandeur, of a profession that promotes the health of the people and saves lives, and takes pride of place in society. After several years in medical school however, the views of some of the students began to change, as they experienced the ups and downs of their training; those with lofty ideas about their lives as doctors started realising that it would be a difficult dream to achieve in Nigeria. Some of those who had had modest dreams of just graduating as doctors started changing their mind sets and desiring more than the Nigerian system was offering them. Herein lies a difference in views on migration and aspirations to migrate: those with modest dreams see and experience

the deficiencies in their medical training and the Nigerian system, but most will take all these things in their stride, remain in Nigeria to practise, and help build the system, while others in this group will leave Nigeria to train or practise abroad only if the chance comes their way. Those who had lofty ideas about medical doctors and medical practice in Nigeria see and experience the deficiencies in the system, and are not only disappointed, but believe the system in Nigeria cannot make them who they dream and want to be; to achieve their exalted dreams, they believe they will have to migrate abroad for further training and practise. This is the argument of Boyd (1989), who advised for the understanding of international migration as a social product, resulting not from the decision by an individual to migrate solely for economic, social, or political reasons, but from the interaction of all these parameters. The factors which this study's respondents claimed to be making medical students and medical doctors to aspire to migrate from Nigeria result from interactions of social factors (family, social connections), economic factors (the desires of individuals and families to have a better life and to insure themselves against failures), political factors (the dissatisfaction with the general situation in Nigeria), and structural factors (the dysfunction in the medical education and healthcare systems) in Nigeria. How these factors interact to influence the decision to migrate from Nigeria depends on the individuals involved, the influence of their families and social ties, and the support they know and hope they can access in pursuit of their migration aspirations.

Most of this study's respondents who expressed the desire and aspirations to migrate from Nigeria also reported having the support of their families and their social connections. However, the role of the family goes beyond just the support for migration; as Fleischer (2007) argued, on the issue of international migration and the African family, what counts is not the personal choice of the individual, but rather the obligations and responsibilities of the individual to the family. Consequently, even in cases where the individuals (medical students or doctors) have no such aspirations to migrate from Nigeria, their sense of responsibility to their family may override their personal wishes; leading them to engage in international migration for the good of their family. In this study, some respondents described how the decision to study medicine was already taken by parents, who then persuaded them to study medicine because they (parents) believed medicine is much more lucrative profession in Nigeria and elsewhere in the world (*Section 6.3.1*); or how some families had already decided and planned for their children to travel abroad for further training or practice after graduation from medical school in Nigeria (*Section 6.3.2*). The involvement of these individuals and their families in international migration, has to be seen from the lens of the NELM theory; that they

are migrating (when they do) not only for economic reasons, but as part of a larger strategy of their families to insure their members and minimise risks to their collective income. Economically, it is a strategy for better income. Socially, it is a strategy to move up the ladder; the improvement in their incomes relative to that of their neighbours improves their social standing in their community. In the absence of other appealing strategies therefore, families have incentives to have their members involved in international migration as the NELM theory postulates.

Social network connections (of friends and colleagues) were also very important in the decision to migrate, and the support for the migration process itself (*Network theory*). A lot of this study's respondents who said they aspired to migrate, but did not have the support of a family member with a migration history, pointed to their social network connections as the pillar on which they hoped to build their migration projects (*Section 6.4*). In some cases, the pull from respondents' social connections appeared to play a bigger role as the driver of their aspirations. In addition, institutional support structures, where available, helped to perpetuate the migration culture in the medical schools studied. Particularly important, is the presence of exchange programmes between medical schools in Nigeria and medical training institutions abroad. Respondents described how participation in these exchanged programmes opened a new world of experience that changed the way they viewed medical education and practice in Nigeria, and also increased their aspirations to migrate from Nigeria. Having a strong diaspora alumni body in the institutions was also reported to be an important factor that helped with the support for the migration aspirations of medical students and medical doctors in this study.

The survey of respondents in this study showed that just under half (41.7%) aspired to migrate after graduation. While this figure may seem high, it is not unusual in Sub-Saharan Africa; similar and even higher figures were reported by Mandeville et al. (2012) in their study of the future career plans of Malawian medical students; Deressa & Azazh (2012) on the attitudes of undergraduate medical students of Addis Ababa University towards migration; and Eliason et al. (2014) on the migration intentions of Ghanaian medical students. While acknowledging that an aspiration to migrate does not always translate into eventual migration, the migration of a fraction of those in this study who expressed an aspiration to migrate would represent a huge loss to the healthcare system in Nigeria, and Nigerian society in general. It would be a huge drain on the public finances of Nigerian taxpayers, who have subsidised the training of these doctors, in the hope that when they graduated, they would join the Nigerian healthcare system,

strengthening and improving it. When source countries complain of the negative effects of medical brain-drain, reference is often made to the benefit represented by migrants' remittances to their home countries. Certainly, Nigerian families benefit from the remittances of family members who have migrated. However, neither the Nigerian healthcare system, medical education system nor the Government itself receives these remittances, although the individuals who send them to their families benefited from public funding for their medical education. Until the Nigerian Government finds a way to harness some direct benefit from these remittances, the medical education system, healthcare system and taxpayers will continue to suffer the effects of medical brain-drain. In addition, the amount of money involved, however huge, does not compensate for, or replace, the loss of human resources for health, nor the distortion such a loss causes to a healthcare system that is already confronting so many challenges.

7.4.3 The need for structural reforms in the medical education system in Nigeria

The medical education system in Nigeria was described by the respondents in this study as broken, dysfunctional, and in need of structural reform; they believed that students were currently receiving training that prepared them inadequately for their professional future. As a result, both students and graduates felt the need to develop themselves further, and believed that post-graduate medical education in Nigeria was not equipped to provide them with the training they needed. This perception of a broken and dysfunctional medical education system was a major driver of the aspiration of medical students and graduates to migrate when they had the chance. Migrating abroad for further training or practice was their strategy to protect and insure themselves against the risks of the failures and dysfunctions in the Nigerian medical education training system; as explained by the NELM theory. Those who could afford it clearly had their minds set on leaving Nigeria for countries they believed could offer them better post-graduate medical training systems and facilities.

Medical education in Nigeria faces a huge infrastructural challenge: an assessment of the needs of Nigerian Public Universities returned a damning report on their infrastructures (FGN, 2012). As argued in Chapters 1 and 4, because medical education involves both the education and healthcare sectors, it is the worst-hit area in the education system; the healthcare sector, which also supports the training of medical students, suffers the same, if not a worse, fate as the education sector. More than any other factor, the infrastructural challenges were the factor most frequently cited by the medical students and graduates in this study who said they were

preparing to leave Nigeria. They had experienced undergraduate medical school training, and had also witnessed the experiences of medical doctors in post-graduate training, and they did not believe that the medical training facilities in Nigeria were good enough to provide the training they would need in the future. It is this belief, ingrained in their minds from their experience of medical school training in Nigeria, that appears to be driving the aspirations of Nigerian medical students and young medical graduates to migrate.

The increasing demand for medical education in Nigeria has led to a proliferation of medical schools in the country. However, as reported by Oguntoye (2000) and Anyebe (2014), this rapid expansion has not been matched with a commensurate increase in infrastructural development, or staff recruitment and development. Medical schools recruit academic staff, not on the basis of academic qualifications or teaching experience, but "... purely on their possession of specialist qualification" (Ibrahim, 2007: 5). These specialists (consultants) are not only few in number in Nigeria (the completion rate of those in specialist training programmes is as low as 30%, according to Hagopian et al. 2005), but most are already working in hospitals as clinical specialists. Their appointment by the universities is therefore on an 'honorary' basis, meaning that they are hospital staff rendering contract services to the universities. These consultants have no motivation to take academic or teaching training in addition to clinical training. Ibrahim (2007: 5) for example, stated "It would not be an exaggeration to say that the medical teachers in Nigeria are vastly untrained in teaching methods". Staffing challenges are made worse by an academic and medical brain-drain occasioned by the factors previously described.

At the heart of the problems facing medical education in Nigeria is the underfunding of the system. Almost all the issues raised by this study's respondents about the current quality of Nigerian medical education have the common denominator of poor funding, resulting in poor remuneration of staff, and to failures in maintaining facilities in good working order. The government's budgetary allocation to the public education sector is so inadequate that almost all of it goes into recurrent overhead costs, leaving little for infrastructural development (Halidu, 2015). Some (Kalama et al. 2012) have even accused the Nigerian government of prioritising the emoluments of government officials above investment in the education or health of Nigerians, probably because their children do not have to study in Nigerian schools, and whenever they fall ill, they can fly abroad to access quality medical check-ups and treatments. The problems and challenges of medical education in Nigeria are made worse by

the poor management practices of medical training institutions, with regard to scarce financial and material resources, and human resources for health and education. Olu Ogurin et al. (2007) argued that some of the factors currently leading to low motivation and dissatisfaction in Nigerian hospitals could easily be resolved by good management practices; for example, listening to staff complaints, and trying to resolve issues before they become a problem. Complaints by students about the "... uninspiring" experiences of resident doctors at the hands of consultants could be easily resolved by management taking a firm position against residents, students, patients and human beings in general being treated with disrespect. The failure of management to be firmly against such practices allows them to continue, and as this study's respondents clearly indicated, it is one of the factors causing medical students and recent medical graduates to decide against returning to Nigerian medical schools for their post-graduate training. Oleribe et al. (2016) and Adeloye et al. (2017) argue that some of the many industrial actions, of which both staff and students in this study complained, could have been avoided by better leadership in the management of healthcare institutions.

One challenge facing Nigerian medical education highlighted in this study is the difficulty in persuading medical students to take an interest in their curriculum. The medical curriculum is a very important document that describes "... all the learning which is planned and guided by the school" (Kelly, 2009). Lack of awareness of this document, or non-compliance with it in the training of Nigerian medical students, constitutes a major failing that is part of the dysfunction in the Nigerian medical education system. Finding ways to make students interested in the curriculum should form a key part of the review of it (curriculum) advocated by some of the stakeholders in the medical education system. The few students who showed an interest in it, or had any knowledge of its contents, were those who had copies on their electronic devices. Easy availability of electronic copies could help overcome complaints about the document being 'big', and get students interested in actually reading the contents.

Some researchers (Hagopian et al. 2005; Tankwanchi et al. 2013) have recommended expanding the residency training programmes in Nigerian medical training institutions to make more spaces available for would-be resident doctors. Most of this study's participants agreed that that would go some way towards retaining doctors in Nigeria, or at least delaying the migration of some of them. However, findings from this study also show that a mere increase in the number of training spaces would only delay the migration of those already dissatisfied with the system, if it was not accompanied by structural changes leading to improvements in

the training programmes. As the NELM theory says, people welcome the opportunity to participate in important systems in their local environment, but if structural failures in the system persist, they will seek ways to insure themselves against the risks of these failures; in most cases, their main strategy for this is to migrate from Nigeria. The residency training programmes in Nigeria need a holistic reform that includes better training facilities, better treatment of doctors in terms of remuneration and respect, and an improvement in conditions: for example, sufficient time to prepare for examinations. These elements, to name a few, would ensure a better training completion rate.

One of the tools used by many countries to reduce the loss of their medical graduates through international migration is the introduction of exit requirements; for example, mandatory services that graduates must render before they are able to change jobs, relocate or migrate (Frehywot, 2010; Kollar & Buyx, 2013). The only scheme that Nigeria has that is close to an exit requirement is the National Youth Service Corps (NYSC) programme: a compulsory one-year programme in which all university educated graduates (as well as those graduating with a Higher National Diploma) who are 30 years and under, have to participate, before they can take any form of public or private sector employment (other than self-employment) in Nigeria. However, not only is the scheme poorly managed, it is also plagued by the same socio-economic and political problems faced by Nigerian society in general. The scheme also has an age loophole that is easily exploited; to avoid participation, people either delay service until they are over 30, or just claim to be over 30. Besides, the service is for one year only; while this represents an important contribution, it is hardly enough, compared to the huge investment of public funds in subsidising the training of medical graduates. In this study, the majority of the students who expressed a desire to migrate after graduation also said they did not want to participate in the NYSC programme because they felt it is a waste of time. Many wished the programme to be scrapped, and some believed this was about to happen, because of the persistent complaints from different quarters about the NYSC scheme. Some of the staff however, recommended strengthening the scheme: not only by extending the length of service, but also by tying it to the issuance of result verification (ECFMG), transcripts, and letters or certificates of good standing from the MDCN. They argued that in this way, Nigerian society would get some return on its investment in the training of doctors.

7.4.4 Revamping the healthcare system in Nigeria

The public healthcare system in Nigeria suffers a similar fate to that of the education system: poor funding, general neglect, deterioration of existing facilities, poorly motivated staff, and ineptitude in the management of both material and human resources. This study's respondents clearly viewed the state of the Nigerian healthcare system as discouraging. Their dissatisfaction with the current system was frequently cited by respondents as one of the reasons they felt their future lay outside the country. Unless conscious efforts are made to reposition the Nigerian healthcare system, medical students and young medical graduates will always do whatever they can to avoid working in a system they believe is failing, especially when they see the option of practising in another country that promises a better practice environment; one that is much more conducive and appealing than the one in Nigeria. The present state of medical facilities in Nigerian hospitals does nothing to encourage students and staff. Any reforms in the healthcare system that do not also include upgrading medical facilities in hospitals and health centres will do little to discourage medical students and young medical graduates from planning and preparing to leave Nigeria to train or practise abroad. Reforms should also include improvements in management practices, as well as appropriate staffing levels in hospitals and health centres.

A lack of some key national social infrastructures, and the breakdown and deterioration of many existing ones, were among the reasons commonly cited by respondents for their dissatisfaction with the general situation in Nigeria, leading to their desire and aspirations to migrate (*NELM*). The power situation was particularly complained of: most Nigerians, and institutions, have to generate their own power for personal or corporate use. The situation is so bad that the public power supply for many Nigerians has become supplementary to personal or corporate power generation by diesel or petrol-powered generators. This deficiency also occurs in other public amenities like public transport, water supply, sewage and other waste management systems. Olu Ogurin et al. (2007) believed that these deficiencies "... compel many Nigerian professionals into 'moonlighting' for extra income with which to procure their own alternatives". Improvements in these national social infrastructures would go a long way to reassure medical students and young medical graduates that the system they are about to graduate into can take care of their social needs. Improvements would also need to extend to such services as the provision of better and affordable housing; housing was a big issue among working respondents in this study, especially senior residents and young consultants; the difficulty they faced in trying to provide acceptable homes for their families (another failure in

the system) gave them an incentive to diversify and improve their sources of income by migrating abroad to work, even if only for a period of time before returning home (*NELM*).

The security challenges in Nigeria were a huge concern for this study's respondents; they worried about an increasing spate of kidnappings of doctors, armed robberies, and other violent offences against both doctors, and society in general. These security challenges are made worse by the inefficiencies of the security apparatus in Nigeria. A country that cannot guarantee the security of its citizens is not a country that encourages anyone to stay when they could leave. Medical students and young medical graduates worry for their lives and those of their families and would leave Nigeria for any society that is more stable and can offer some guarantees of security. The persistence of the present security challenges in Nigeria, with which the security system struggles to cope, serves as a clear push factor for the migration of doctors, because they want to minimise risks to their families, in absolute and relative terms (*NELM*).

7.5 Implications of study findings for theory, policy and practice

The main theory that guided this study was the New Economy of Labour Migration theory; this theory sees failures in the system as the push factor that encourages individuals and families to engage in international migration (amongst other activities) as a way of insuring and protecting themselves from risks to their collective incomes. This study reported complaints from respondents about failures in the system in Nigeria; in the area of education, healthcare, and about almost all the socio-economic lives and public social infrastructures. It is possible that these failures are the genesis of the general dissatisfactions that respondents claimed is pushing the medical students and young medical graduates to engage in international migration. However, findings in this study also show that while these failures in the systems push individuals and families to engage in international migration, migration as an alternative only becomes cultural when there are clear and strong supporting structures that such individuals and families can take advantage of. As a result, those individuals in institutions with strong structures supporting migration (for example, UI) are much more likely to be the ones who aspire much more to migrate, and the ones who eventually migrate. Theoretically therefore, migration from these institutions cannot just be explained by the NELM theory; other theoretical prepositions helped in refining and explaining the initiation and perpetuation of international migration from these institutions. For example, while the NELM theory clearly captures the general dissatisfaction with the failures in the system in Nigeria and how individuals and families go about trying to protect themselves and their collective interests

from the risks of those failures by engaging in international migration, the theory fails to explain the influence of the long migration histories of some of these medical training institutions, or the role of such social influences as personal social ties, overseas alumni emigres and alumni bodies, or how decisions on migration destinations are made by potential emigrants. On the other hand, cumulative causation and institutional migration theories better explain why medical graduates from some institutions (like the University of Ibadan) continue to dominate the list of international medical school graduates from Nigeria and Sub-Saharan Africa; because the risks and cost associated with migration from such institutions have been reduced for their graduates (cumulative causation theory), and students and graduates from such schools get additional institutional support (for example, international exchange programmes for medical students and doctors in training). The network and social capital theories of migration also better explain why intending migrants tend to choose destinations where they have their families, friends and professional colleagues. As advised by various researchers on international migration (Massey et al. 1993; Hagen-Zanker, 2008; and Kurekova, 2011) these other theories were employed to help in bringing about a better understanding of migration from the institutions studied.

This study found varying degree of the evidence of a culture of migration in the institutions studied. Even in those medical training institutions where the evidence is not strong, the evidence shows that the culture of migration is spreading, and some of these other institutions might start showing stronger evidence than they have today if a concerted effort is not made to arrest this trend. Arresting the spread of this culture of migration calls for a recognition of its existence, and deliberately putting measures in place to arrest the trend and retain as many doctors as possible in Nigeria. Some of the measures that would need to be put in place have been enumerated in the body of this thesis and include the following.

Revamping the public social infrastructures: a concerted effort to revamp the public social infrastructures such as electricity, transport, security, healthcare and others, is key to giving people the hope that the failures in the system are being tackled, and that they can look inward for ways to protect their collective incomes. Nothing encourages people in a society where their security is not taken seriously or guaranteed, or where they have to generate their own power for personal and commercial use. There is an urgent need to improve the public transport system, provide better and affordable housing, and improve the public healthcare system. None of these will come easy in the face of different competing interest for the public resources.

However, a serious attempt at addressing the dilapidated and non-existing social public infrastructures will encourage more and more doctors and other individuals and their families to look inward for solution to the many complaints as presented by this study's participants.

A reformation of the medical education system: the medical training programmes (from the undergraduate training to post-graduate training) in Nigeria need a holistic reform that includes a review of the medical curriculum, better training facilities, adequate staffing levels, better treatment of doctors in terms of remuneration and respect, and an improvement in training and working conditions that will include sufficient time to prepare for examinations so as to ensure a better training completion rate. *Making more post-graduate training places available* for residency in the medical training institutions for would-be resident doctors will go some way in reducing the loss of doctors from Nigeria through international migration.

Better leadership in the management of medical training institutions: encouraging the improvement in the quality of leadership and personnel management in medical training institutions by way of training for administrative and management level staff. This will lead to early resolution of conflicts, reducing the frequency of strikes, improving the rapport between senior (clinical and academic) staff and junior staff (registrars, house officers), and so encouraging more students and young medical graduates to return for their post-graduate medical training in Nigerian medical training institutions.

The introduction of exit requirements: deliberately targeted at institutional structures that support migration, with a view to retaining Nigerian-trained medical doctors in the healthcare system in Nigeria for as long as possible. For example, the introduction of mandatory service period that medical graduates must provide before they are able to change jobs, relocate or migrate, and tying this to the issuance of result verification (ECFMG), transcripts, and letters or certificates of good standing from the MDCN. Properly implemented, this will lead to the Nigerian society getting a better return on its investment in the training of doctors.

Harnessing remittances for public use: the Nigerian Government is encouraged to device ways to harness some direct benefit (financial and non-financial) from migrant remittances, and particularly, find ways to channel some of these benefits into the (medical) education system, healthcare system and the general public physical and social infrastructures.

7.6 Strengths of this study

One of the main strength of this study comes from the design of the methods used for data collection and analysis. Because I felt the phenomenon under investigation was a complex one, I employed a pragmatic approach, that involved a sequential mix of quantitative and qualitative methods. This allowed me the flexibility to use any method I felt would help lead to a better understanding of the issues around the phenomenon under study. For example, measuring views and aspirations using summated Likert format statements strengthens the evidence from this study data, compared to the results that would have been obtained had I measured these parameters with a simple '*YES*' or '*NO*' response to questions on respondents' views on migration and their aspirations to migrate. This probably explains why a smaller proportion of my study's respondents (41.7%) aspired to migrate compared to respondents in studies from elsewhere in Africa (53% by Deressa & Azazh, 2012; 49% by Eliason et al. 2014).

Lastly, the bulk of the fieldwork for this study was conducted rigorously, following a case study protocol as a guide to data collection. I also developed a database especially for this study (to preserve data in a retrievable form), which in addition to the protocol ensured the reliability of my study data. To strengthen the internal validity of my study I employed explanation-building in my analysis, as well as addressing plausible rival explanations. The use of multiple sources of evidence, which eventually led to the development of convergent lines of inquiry, along with maintaining a chain of evidence, helped to increase the construct validity of this study. The application of the above tools not only ensured the reliability of my study data, but also the demonstration of literal (or direct) replication of findings in the cases (medical schools) studied.

7.7 Limitations of this study

The inability to conduct my survey in any medical schools in two of the geo-political regions of Nigeria (the predominantly Muslim north-west and north-east), for the security reasons explained in Section 3.6.1, introduced a challenge to the findings of my study. For example, this study found that respondents' views on migration were significantly associated with their religion. However, as explained in Section 5.3, only a small proportion of my study population (less than 6.0%) described themselves as Muslim; most of the medical schools surveyed are predominantly Christian. This makes it difficult to validly interpret the effects of respondents'

religion (from this survey's data) on their views or attitudes towards the international migration of doctors from Nigeria.

Another limitation of this study is the small sample size of participants: because this study was carried out in four (4) of the thirty-four (34) operational medical schools in Nigeria, the resultant sample size of survey participants was small (n = 211). This raises questions about generalisability. However, as stated earlier, the primary goal of the survey was to help identify medical schools with rich evidence of factors characteristic of the existence of a culture that support migration. Another limitation was the small number of parents (n = 3) interviewed as part of the study, raising questions about the ability to adequately reflect on the role of the family in the initiation and perpetuation of the culture of migration in the medical schools in Nigeria. However, in addition to the three family members (parents) interviewed in this study, all interview participants were asked to discuss the role of (their) family in the aspirations of students to migrate after graduation and medical migration in general; a session of the interviews with all the participants (see interview guide in *Appendix 5: Case study protocol*) was dedicated to discussing the family and the role it (family) played in the choice of studying medicine, their views on migration, their aspirations to migrate after graduation, and the support for their post-graduate career plans and migration.

Lastly, I acknowledge the limited quantitative analysis of the survey data, and the obvious heavy reliance on qualitative analysis. As explained earlier, because the primary goal of the survey was to help identify medical schools with rich evidence of factors characteristic of the existence of a culture that support migration, the data generated were limited, consequently resulting in the limited quantitative analysis.

7.8 Conclusion

This study set out to research the culture existing in Nigerian medical schools that supports the migration of students after they graduate. That there are features and habits characteristic of a culture of migration in some of these medical schools was clearly evidenced in this study. The main hypothesis that guided this study was that this culture of migration is a product of a combination of factors, and as a result, the decision to migrate is not one that is taken by an individual just for a better income, but is one taken by a larger unit (their family or household), with a view to minimising any risk to their collective income. It remains my argument, and the

findings from this study support that argument; that a combination of a dysfunctional medical education (and healthcare) system in Nigeria, and social factors, in both the medical institutions and Nigerian society in general, forces families to want to diversify their sources of income by sending their medically-qualified members abroad, in a bid to insure themselves against risk from a failing system in Nigeria; this is in line with the new economics of labour migration theory.

Assessing the culture of migration in the medical training institutions in Nigeria is a complex issue. To understand the culture and what perpetuates it requires the employment of several methods in both data collection and analysis. This study applied a combination of quantitative and qualitative methods in data collection and analysis, to bring about an understanding of the culture, prevailing in the medical schools, that supports migration. Based on the evidence from the data, it is this study's finding that evidence of a culture of migration exists in some medical schools in Nigeria; but that in some other medical schools however, the evidence does not support the existence of this culture. The culture however, appears to be spreading, and unless a conscious effort is made to stem this spread, the medical schools presently showing little or no evidence of this culture may start developing the characteristics that support it.

Finally, in the two institutions visited for the third phase of this study, support for migration from institutions, family and social connections operated side by side, with some playing much more prominent roles than others in different settings. Very importantly, even though there are differences in which of the support structures plays the most significant role as the driver of migration from the two medical schools, the broad support structures found in each medical school are direct replications of each other. Consequently, one major policy recommendation from this study to help in curtailing the spread of this culture of migration in Nigerian medical training institutions is the introduction of targeted exit requirements for medical school graduates to ensure that Nigerian medical school graduates are retained in Nigeria for a longer period and the Nigerian taxpayer gets a better deal from their investment in subsidizing the training of medical doctors in Nigeria.

Finally, a lot remains to be understood about the Nigerian society, medical education and medical migration. For example, this study's participants general perceived medical education in Nigeria to be deficient and dysfunctional: however, products of the system have gone on to distinguish themselves professionally at home and abroad. What are the coping strategies used by both staff of medical training institutions, medical students and medical graduates to

overcome the dysfunctions in the medical education system? On medical migration, there is the need to study the role of both gender and religion in the propagation of the culture of medical migration in the medical training institutions in Nigeria, and how individuals make the choice of where to migrate to for further training or practice. Some students claimed they got career counselling from individuals invited to students' seminars and conferences by student associations and religious societies: what is the contributions of such students' societies and religious organisations to the perpetuation of the culture of migration in these institutions? Lastly, recognising that migration intentions do not always translate into actual migration all the time, a key line of enquiry arising from this study will be a follow up longitudinal (cohort) study to find out how many doctors from this cohort of students and doctors will actually migrate years after their graduation from medical school.

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APPENDICES

Appendix 1: Reasons for migration.

	PUSH FACTORS (in source countries)	**PULL FACTORS (in host countries)**
	Financial reasons (low income)	The desired opportunities (better wage, job opportunities and work environment
	Professional development (insufficient post-graduate training opportunities)	Opportunities for training and career advancement
	General political and economic conditions (oppressive political climate, persecution, conflicts)	Stable and favourable political and economic conditions in recipient countries
	Poor working conditions	Better facilities and good working conditions
	culture of medical migration	Recruiters and networks
	Security/Safety issues (High crime rate)	Better security and living conditions
	HIV/AIDS	Safer work environment
	Concern for the future (Family/children)	Greater opportunities for family/children
	Increased workload/burnout	Better quality of life
	Dissatisfaction with working and living conditions	Greater job satisfaction and Better quality of life

Appendix 2: Cover letter

INFORMATION SHEET

Queen Margaret University
EDINBURGH

My name is Eddy Ighele AWIRE. I am a PhD student from the School of health sciences at Queen Margaret University (QMU) in Edinburgh, United Kingdom. As part of my degree course, I am undertaking a research project for my thesis. The title of my study is "SOCIAL AND STRUCTURAL FACTORS AFFECTING THE CULTURE OF MEDICAL MIGRATION IN NIGERIAN MEDICAL SCHOOLS". It is a two-part mixed methods study, the objectives of which include the following:

- To assess the nature and scope of the culture of migration in Nigerian medical schools.
- To examine the design and structure of medical education in Nigerian medical schools
- To understand how medical education in Nigeria influences the aspiration of medical students to migrate out of Nigeria after graduation
- To understand how familial and social influences affect the culture of migration in Nigerian medical schools.

The findings of this study will provide empirical evidence of the nature and scope of a culture of migration in Nigerian medical schools as well as help to understand the dynamics that propagate this culture. Your participation is solicited in completing this study; in the first part of the study your participation will be in the form of a survey of attitudes towards migration, aspirations to migrate and family migration history. Participation should not take more than 30 minutes of your time. In the second part of the study, your participation will involve taking part in interviews that will explore the role of social and structural factors in Nigerian medical schools that help to propagate a culture of migration. You will be free to withdraw from the study at any stage, and you would not have to give a reason for withdrawing.

In both parts of the study you are guaranteed anonymity, privacy and confidentiality. All data will be anonymised, as your name and any other identifying information will be removed in

any report of the data gathered. The data from the survey will be kept safe in a pad-locked box, while audio files from interviews will be stored in a password protected file in a password protected computer, until I return to my institution (QMU), where the data will be safely held for a period of 5 years, so as to allow for re-assessing and checking of data as issues arise. The results of this study may be presented at a scientific conference and/or published in an academic journal.

Should you desire to contact an independent person, who knows about this project but is not involved in it, you are welcome to contact a staff member at the Institute for International Health and Development (IIHD), Queen Margaret University, Edinburgh.

If you have read and understood this information sheet, and would like to participate in the study, please now see the consent form.

Contact details of the researcher

Name of researcher: Eddy Ighele Awire

Address: PhD Student, Institute for International Health and Development,
School of Health Sciences
Queen Margaret University, Edinburgh
Queen Margaret University Drive
Musselburgh
East Lothian EH21 6UU

Email / Telephone: eawire@qmu.ac.uk / my Nigerian cell phone number is: 08033361263

Contact details of my independent adviser:

Name of adviser: Carola Eyber
Institute for International Health and Development,
School of Health Sciences
Queen Margaret University, Edinburgh
Queen Margaret University Drive
Musselburgh
East Lothian EH21 6UU
Email: CEyber@qmu.ac.uk
Phone: 44 (0) 131 474 0000

Appendix 3: Sample questionnaire

Instruction on how to complete the questionnaire

This questionnaire is divided into four sections: the first section (Section A) asks basic social and demographic characteristics (age, sex, religion, level of study.). The next, Section B, is about family migration history. Sections C and D contain groups of statements about "views on migration" and "migration aspirations": in each of these two sections (C & D) you are to respond by either agreeing with or disagreeing with each statement. Your participation should not take more than 30 minutes of your time, and at the end of the session the completed questionnaires should be handed back to me.

In completing this questionnaire, you are advised that there are no right or wrong answers, and you are encouraged to please answer all questions.

Should there be a part of the questionnaire instrument that you don't understand, or you need further clarifications, pleases don't hesitate to call my attention.

Thanks.

Section A

Date .....

Sex ……

Age .....

Marital Status …….....

Level of study …….

Religion ……

Section B: MIGRATION HISTORY

Have you ever been abroad (outside Africa) before?

YES NO

Do you have a family member, friend, or colleague who is a medical doctor/healthcare worker who is presently practicing abroad or has practised abroad before?

YES NO

If you answered "YES" to the above question, what is/was your relationship with this doctor/healthcare worker?

• 1 – NONE • 2 – A Neighbour I know/heard of • 3 – Friend/colleague

• 4 – Extended family member • 5 – Nuclear family member

Would you say this person(s) was influential in your decision to study medicine?

YES NO

If you answered "YES" to the above question, how will you describe the influence of this person (s) on your career intentions?

(A) Extremely influential (B) Very influential (C) Somewhat influential (D) Slightly influential (E) Not at all influential

Section C: VIEWS ON MIGRATION

To which extent do you agree or disagree with the following statements?

There are better prospects for my career advancement as a doctor abroad

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

I will be able to find the job that I want abroad

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

I will experience better job satisfaction practising abroad compared to practising in Nigeria

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

My family will be better-off with me practising abroad

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

It is important to have the experience of practising abroad at some point in your career

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

My overall standing in my community will be better improved if I practise abroad compared to practising in Nigeria

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

Doctors get better recognition in Nigeria if they have practised overseas before

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

Doctors who remain in Nigeria for their entire careers are not ambitious

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

Section D: ASPIRATIONS TO MIGRATE

To which extent do you agree or disagree with the following statements?

I have given some consideration to the idea of going abroad to practise someday after graduation

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

I have enquired about information on going abroad to practise

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

I have most of the information I need about how to qualify to practise abroad

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

I would like to move abroad to practise someday after graduation

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

There is a plan in place for me to migrate abroad to practise after graduation

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

I am not concerned that despite qualifying as a doctor in Nigeria I will still be required to pass qualifying examinations before I can practise abroad

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

I am not discouraged by the length of time it could take to acquire the necessary certification to practise abroad

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

The resources it would take for me to pass the qualifying exams in order to practise abroad does not discourage me

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

Appendix 4: Questionnaire

Instruction on how to complete the questionnaire

This questionnaire is divided into six sections: the first section (Section A) asks basic social and demographic characteristics (age, sex, religion, level of study and other general questions. The next, Section B, is about medical education in Nigeria. Section C asks questions about your post-graduate career plans, while Section D is about your family migration history. Finally, Sections E and F contain groups of statements about "views on migration" and "migration aspirations": in each of these two sections (E & F) you are to respond by either agreeing with or disagreeing with each statement.

Your participation should not take more than 30 minutes of your time, and at the end of the session the completed questionnaire should be handed back to me.

In completing this questionnaire, you are advised that there are no right or wrong answers, and you are encouraged to please answer all questions.

Should there be a part of the questionnaire instrument that you don't understand, or you need further clarifications, please don't hesitate to call my attention.

Thank you.

Section A: SOCIO-DEMOGRAPHIC INFORMATION

1. Date .....
2. Sex ……
3. Age .....
4. Marital Status …….....
5. Level of study …….
6. Religion …….

7. How would you describe the location of your family home?

(A) Rural/ Small town ☐

(B) Urban/ Large town/ City ☐

8. Where did you complete your secondary school education?

(A) Rural/ Small town ☐

(B) Urban/ Large town/ City ☐

9. How would you describe your father's highest educational level attained?

(A) Never attended school ☐

(B) Primary education ☐

(C) Secondary education ☐

(D)Tertiary education ☐

10. How would you describe your mother's highest educational level attained?

A) Never attended school ☐

(B) Primary education ☐

(C) Secondary education ☐

(D)Tertiary education ☐

Section B: MEDICAL EDUCATION

11. In your own words can you tell me, what was the main reason(s) you chose to study medicine? (IF MORE THAN ONE REASON, THEN PLEASE LIST IN ORDER OF IMPORTANCE)

……

……

…….

…….

12. How would you describe your experience of studying medicine?

(A) Excellent ☐

(B) Very good ☐

(C) Good ☐

(D) Indifferent ☐

(F) Bad ☐

How would you rate the quality of medical education you are currently receiving in the following areas?

13. Quality of classroom teaching/instructions

(A) Excellent ☐

(B) Very good ☐

(C) Good ☐

(D) Indifferent ☐

(F) Bad ☐

14. Quality of academic training facilities

(A) Excellent ☐

(B) Very good ☐

(C) Good ☐

(D) Indifferent ☐

(F) Bad ☐

15. Quality of clinical training facilities

(A) Excellent ☐

(B) Very good ☐

(C) Good ☐

(D) Indifferent ☐

(F) Bad ☐

16. Quality of support from faculty staff (academic and clinical)

(A) Excellent ☐

(B) Very good ☐

(C) Good ☐

(D) Indifferent ☐

(F) Bad ☐

17. Relevance of medical curriculum to present day health challenges facing Nigeria

(A) Excellent ☐

(B) Very good ☐

(C) Good ☐

(D) Indifferent ☐

(F) Bad ☐

Section C: POST GRADUATE CAREER PLANS

18. What do you plan to do after graduating from medical school?

Go into…….

(A) Full time practice in Nigeria ☐

(B) Specialty training in Nigeria (Residency). ☐

(C) Research/Academia in Nigeria ☐

(D) Full time practice abroad ☐

(E) Further training abroad ☐

(F) Research/Academia abroad ☐

(G) Undecided ☐

(H) Others (please specify). ☐

19. Should you decide to go into practice, where will you prefer to practise?

(A) Rural areas in Nigeria ☐

(B) Urban areas in Nigeria ☐

(C) Anywhere in Nigeria (whether rural or unban). ☐

(D) Abroad/outside Nigeria ☐

(E) Undecided ☐

20. Should you decide to practice in Nigeria, in which of the sectors would you prefer to practise?

(A) Private For-profit ☐

(B) Private Non-profit (N.G.0) ☐

(C) Public ☐

(D) Undecided ☐

21. Should you decide to specialise or pursue a post-graduate career, what will your choice be?

(A) Clinical sciences ☐

(B) Basic medical sciences ☐

(C) Laboratory medicine ☐

(D) Others (please specify). ☐

(E) Undecided ☐

22. Should you decide to pursue a post-graduate career in clinical sciences, which will be your choice?

(A) Medicine and sub-specialty ☐

(B) Surgery and Sub-specialty ☐

(C) Obstetrics and Gynaecology ☐

(D) Public/community health ☐

(E) Others (please specify). ☐

(F) Undecided ☐

23. Should you decide to pursue a career in basic medical sciences, what will your choice be?

(A) Anatomy ☐

(B) Physiology ☐

(C) Pharmacology ☐

(D) Medical biochemistry ☐

(E) Others (please specify). ☐

(F) Undecided ☐

Section D: MIGRATION HISTORY

24. Have you ever been abroad (outside Africa) before?

YES NO

25. Do you have a family member, friend, or colleague who is a medical doctor/healthcare worker?

YES →**PLEASE GO TO QUESTION 26**

NO →**PLEASE GO TO QUESTION 30**

26. If you answered "YES" above, have they practised abroad?

YES →**PLEASE GO TO QUESTION 27**

NO →**PLEASEGO TO QUESTION 30**

27. If you answered "YES" to question 26 above, what is/was your relationship with this doctor/healthcare worker?

• 1 – NONE • 2 – A Neighbour I know/heard of • 3 – Friend/colleague

• 4 – Extended family member • 5 – Nuclear family member

28. Would you say this person(s) was influential in your decision to study medicine?

YES →**PLEASE GO TO QUESTION 29**

NO→**PLEASE GO TO QUESTION 30**

29. If you answered "YES" to question 28 above, can you explain how this person was influential?

…….

Section E: VIEWS ON MIGRATION

To which extent do you agree or disagree with the following statements?

30. There are better prospects for my career advancement as a doctor abroad

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

31. I will be able to find the job that I want abroad

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

32. I will experience better job satisfaction practicing abroad compared to practising in Nigeria

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

33. My family will be financially better-off with me practising abroad

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

34. It is important to have the experience of practising abroad at some point in your career

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

35. My overall standing in my community will be improved if I practise abroad compared to practising in Nigeria

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

36. Doctors get better recognition in Nigeria if they have practised overseas before

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

Section F: ASPIRATIONS TO MIGRATE

To which extent do you agree or disagree with the following statements?

37. I have given some consideration to the idea of going abroad to practise someday.

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

38. I have enquired about information on going abroad to practise

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

49. I have most of the information I need about how to qualify to practise abroad

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

40. I would like to move abroad to practise someday after graduation

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

41. There is a plan in place for me to migrate abroad to practise after graduation

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

42. I am not concerned that despite qualifying as a doctor in Nigeria I will still be required to pass qualifying examinations before I can practise abroad

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

43. I am not discouraged by the length of time it could take to acquire the necessary certification to practise abroad

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

44. The resources it would take for me to pass the qualifying exams in order to practise abroad does not discourage me

• 1 – Strongly disagree • 2 – Disagree • 3 – Neither agree or disagree • 4 – Agree

• 5 – Strongly agree

45. What in your opinion, should the government do in order to encourage doctors to remain and practise in Nigeria rather than move abroad?

THANK YOU FOR YOUR TIME AND COOPERATION IN FILLING-IN THE QUESTIONNAIRE

Appendix 5: Case study protocol

Overview of the case study project

Background: The migration and loss of physicians (medical brain-drain) from a country is a serious problem for which solutions have been elusive. Various reasons ("push" and "push" factors) and theories have been given to explain this phenomenon. In Nigeria one of the reasons given is a culture of medical migration in our medical schools which encourages medical students to one day move abroad after graduation to continue their medical practice (Hagopian et.al 2005). But how and why is this culture sustained in our medical schools despite the problems that the resulting brain drain creates for the healthcare system in Nigeria?

One of the theories given to explain why people migrate (the new economics of labour migration theory) claims that the decision to migrate is not taken by an individual alone, rather it is take by a larger unit of related individuals, mainly the family, with a view to minimize risk to collective income (Massey et al. 1993).

The educational system in Nigeria on the other hand, has been described as dysfunctional and not suited for tackling the numerous problems facing Nigeria (amongst which is medical brain drain), as reported in a recent newspaper report (Vanguard News online, October 05, 2014). In the face of these challenges facing education in Nigeria, what role do medical education in Nigeria, and social factors in Nigerian medical schools play in establishing and sustaining a culture that encourages medical students to migrate out of Nigeria after graduation?

Study's propositions: it is this study's proposition that a culture of medical migration is propagated by the students' network of the friends, colleagues and family, as well as the way medical education is structured in Nigeria.

Role of this protocol: the role of this protocol is to serve as a standardized agenda for my line of inquiry, guiding the way data is to be collected, as well as to increase the reliability of the case study.

Study's purpose and objectives:

-To examine how medical education in Nigerian medical schools influence the aspiration of medical students to migrate out of Nigeria after graduation.

-To understand how social influences affect the aspirations and intentions of medical students to migrate after graduation in Nigeria

Study setting: this study will be conducted at two Nigerian universities selected based on their rating, from the first part of this study, as having a high presence/existence of a culture of migration.

Field procedures

Access to the case study site

The first contact will be made with the office of the Provost of the college/Dean of the faculty. A letter of introduction will then be presented which will introduce me, my research topic, aims and objectives as well as reasons for my study. This will get me acquainted with the faculty staff and students and will eventually snowball into interviews with staff, students and other key informants.

Participant profile

Participants	Number	Criteria for selection
Students	15-20	Willingness to participate Being information-rich
House officers	5-10	Willingness to participate Being information-rich
Faculty staff (Dean, faculty officers/college secretary, lecturers)	10-15	Willingness to participate Being information-rich
Family members of embedded units	5-10	Positive family migration history

Protection, consent and confidentiality

In addition to the approval of the institution for my study, informed consent will be obtained from individual participants before their participation, and those who refuse consent will naturally be excluded from the study. From the onset of the study I will explain to participants

what the research and their participation entails, and assure them that their participation and responses will be treated with the utmost confidentiality and all personal identifying information protected (anonymised).

Managing the data

This study will employ the use of a digital recorder in addition to writing notes during interviews. Paper documents will be copied confidentially. Audio files of interviews will be stored in a password protected file in a password protected computer. All documents and raw data collected will be anonymised, protected and stored safely in a padlocked box while in the field, and on return to QMU, will be kept in the division of the IIHD for a period of 5 years so they can be re-accessed and checked should issues or queries arise. A database will be created for this case study that will include organised field notes, the case study documents, narrative compilations and tubular materials.

Data collection and source

This case study will use a combination of methods for the collection of data, which will include interviews, document and record analysis.

Evidence	**Source**	**Purpose**	**Time scale**
Interviews	Faculty officials	As key informants; providing information on college/medical schools' administration, funding, admissions.	3-4 months from commencement of data collection (March 2015-June 2015)
	University/college alumni officials	As key informants; as above	
	Students House officers	Study participants: provide information on the subject under study	
	Embedded units: family members	To further explore the role of the family	
Documents and record analysis.	University's registry	To examine academic curriculum, students' admission and graduation records, records of alumni. Applications for international transcripts.	3-4 months from commencement of data collection (March 2015-June 2015)
	College/faculty records	To examine recent applications for letters of good standing by graduates of the medical schools	
	Medical and Dental Council of Nigeria records	Records of alumni and alumni activities	
	University/college alumni body records		

Case study questions and methods

These questions will serve as reminders to me regarding the information that I need to collect, as well as serve as a prompt to keep me on track as I proceed with data collection.

Question	Evidence/Method	potential sources of information
Medical education in Nigeria 1. How is it designed to take care of Nigeria's human resource needs? 2. How is the quality? 3. How relevant to present day reality? 4. How's it funded: any funding gaps? How are the gaps filled?	Interviews Document and record analysis	Faculty staff Students House officers University's registry College/faculty records
Medical Curriculum: 1. Does the curriculum of school the address Nigeria's health needs/problems? 2. Especially health human resource problems?	Interviews Document and record analysis	Faculty staff Students, House officers University's registry College/faculty records
How do teaching practices deliver the curriculum? 1. In school 2. In teaching hospitals	Interviews Document and record analysis	Faculty staff Students University's registry College/faculty records
Medical training facilities: 1. Are they fit for purpose? 2. In good state and quality? 3. Do they meet with students' aspirations?	Interviews Document and record analysis	Faculty staff Students, House officers University's registry College/faculty records

Medical texts: 1. Are they relevant to common conditions seen in Nigerian communities/hospitals?	Interviews Document and record analysis	Faculty staff, Students, House officers University's registry College/faculty records
Admissions into medical schools: 2. What are the criteria? 3. Who gets admitted?	Interviews Document and record analysis	Faculty staff, Students, House officers University's registry College/faculty records
Career Paths: 1. What are the career options after graduation? 2. Is there career counselling? 3. Who gives the counselling?	Interviews Document and record analysis	Faculty staff, Students, House officers University's registry College/faculty records
How does the faculty view emigration opportunities for their students?	Interviews Document and record analysis	Faculty staff, Students, House officers University's registry College/faculty records
To what extent do your graduates emigrate to other countries? 1. In what ways do you support them? 2. Is there a body or network that provides assistance to facilitate this?	Interviews Document and record analysis	Faculty staff, Students, House officers, University/college alumni officials University's registry College/faculty records University/college alumni body Medical and Dental Council of Nigeria
What kinds of students emigrate?	Interviews Document and record analysis	Faculty staff, Students, House officers, University/college alumni officials. University's registry, College/faculty records, college alumni body

What has the school attempted to retain its graduates within the country? 1. How successful have these been? 2. Any return migration?	Interviews Record and document analysis	Faculty staff, Students, House officers, University/college alumni officials University's registry College secretary/faculty officer University/college alumni body
Role of Networks:		
Do students talk with you about opportunities to train or practice abroad? 1. How often? 2. How do you advise them?	Interviews	Faculty staff, Students, House officers, University/college alumni officials
Your school has a long history/reputation of exporting its graduates abroad for practice. How do you view this? 1. How did this come about? 2. What drives it? 3. How is it sustained? 4. How does it benefit the school and country?	Interviews	Faculty staff Students University/college alumni body officials
Is there any continuing contact with alumni émigrés after they leave the country? 1. What form of contact? 2. How often? 3. What is the purpose?	Interviews Record and document analysis	Faculty staff University/college alumni officials Students University's registry College/faculty records University/college alumni body
Are alumni émigrés formally invited to participate in the affairs of the school after they emigrate? 4. How often? 5. In what ways? 6. Why?	Interviews Record and document analysis	Faculty staff, Students, House officers University/college alumni officials College/faculty records University/college alumni body

What has the alumni body attempted to retain its graduates within the country? 7. How successful have these been? 8. Any return migration?	Interviews Record and document analysis	Students, House officers University/college alumni officials University/college alumni body records
Do you discuss going to practise abroad amongst yourselves? 1. How often? 2. How seriously? How did it start?	Interviews	Students House officers Family of embedded units of study
What reasons do other students/colleagues give for wanting to go abroad? How will you learn about practice or training opportunities abroad?	Interviews	Students House officers Family of embedded units of study
What are the advantages and disadvantages of the emigration of their graduates? 3. To the school 4. To émigré's reputation 5. To the health system 6. To the country	Interviews Record and document analysis	Faculty staff Students House officers University/college alumni officials University's registry College/faculty records University/college alumni body
Is there a system that encourages students to emigrate when they graduate? Why? **1.** Does the school encourage it? **2.** Do staffs encourage it? **3.** Do students' family encourage it? In what ways? And why?	Interviews Record and document analysis	Faculty staff Students House officers University/college alumni officials Family of embedded units of study College/faculty officer College alumni body

Role of the family:		
What is the role of the family in the choice of • course of study • where to study • where to train/practice • whether to emigrate	Interviews	Faculty staff Students House officers University/college alumni officials Family of embedded units of study
In what ways do 1. faculty staff, 2. alumni émigrés 3. families 4. other networks help in preparing students for emigration?	Interviews Documents and record analysis	Faculty staff Students House officers University/college alumni officials Family of embedded units of study College/faculty records College alumni records
Why did you choose to go to medical school? 1. Whose decision was it? 2. Was your family involved in the decision?	Interviews	Students House officers Family of embedded units of study
As a youngster what was it you dreamt of becoming? 1. When did you start changing your dream to becoming a doctor? 2. What did you know about medical doctors/practise as a youngster? 3. Who were your role models? Were they doctors? Members of your family? Have your role models practised abroad? 1. For how long?	Interviews	Students House officers Family of embedded units of study

2. Do you get encouragement from them about practising or training abroad?		
What plans do you have post-graduation? 1. Residency? 2. Work in Nigeria? 3. Go abroad? If you decide to go abroad what would be the reasons?	Interviews Interviews	Students House officers Family of embedded units of study Students Family of embedded units of study
At what point did the desire to go abroad start getting into your consciousness? 1. What influenced it? 2. Did you discuss it with friends/colleagues? Family? 3. What was their advice?	Interviews	Students House officers Family of embedded units of study
How will you learn about practise or training opportunities abroad?	Interviews	Students, House officers Family of embedded units of study
Do you receive encouragement about going abroad to study or practise from? 1. Your school? 2. Your professors? 3. Your family? 4. Your friends/colleagues? In what ways?	Interviews	Students House officers Family of embedded units of study

Appendix 6: Ethical approval (Queen Margaret University)

Queen Margaret University
EDINBURGH

Eddy Awire

School of Health Sciences

Lucy Clapson
Governance and Quality Enhancement
Queen Margaret University, Edinburgh
Queen Margaret University Drive
Musselburgh
East Lothian EH21 6UU

Tel (0)131 474 0000 Fax (0)131 474 0001
Email: researchethics@qmu.ac.uk

06 February 2015

Dear Eddy,

Ethical Approval – Social and Structural Factors Affecting the Culture of Medical Migration in Nigerian Medical Schools

I am writing to confirm that ethical approval has been granted by Queen Margaret University for the above named study.

Yours sincerely,

Lucy Clapson
Quality Enhancemnet Officer

DIVISION OF GOVERNANCE AND QUALITY ENHANCEMENT
QUEEN MARGARET UNIVERSITY, EDINBURGH
MUSSELBURGH
EAST LOTHIAN EH21 6UU
TELEPHONE: 0131 474 0000

Appendix 7: Ethical approval (National Health Research Ethics Committee of Nigeria (NHREC)

National Health Research Ethics Committee of Nigeria (NHREC)

Promoting Highest Ethical and Scientific Standards for Health Research in Nigeria

Federal Ministry of Health

NHREC Protocol Number NHREC/01/01/2007-11/05/2015
NHREC Approval Number NHREC/01/01/2007-20/05/2015
Date: 20th May, 2015

RE: SOCIAL AND STRUCTURAL FACTORS AFFECTING THE CULTURE OF MEDICAL MIGRATION IN NIGERIAN MEDICAL SCHOOLS

Health Research Ethics Committee (HREC) assigned number: NHREC/01/01/2007

Name of Student Dissertation Adviser: Carola Eyber

Name of Student Investigator: Eddy Ighele Awire

Address of Student Investigator: PhD Student, Institute for International Health and Development, School of Health Sciences Queen Margaret University, Edinburgh, UK
Email: eawire@qmu.ac.uk; Cell Phone number: 08033361263

Date of receipt of valid application: 11-05-2015
Date when final determination of research was made: 20-05-2015

Notice of Expedited Committee Review and Approval

This is to inform you that the research described in the submitted protocol, the consent forms and other participant information materials have been reviewed and *granted an expedited committee approval by the National Health Research Ethics Committee.*

This approval dates from 20/05/2015 to 19/05/2016. If there is delay in starting the research, please inform the HREC so that the dates of approval can be adjusted accordingly. Note that no participant accrual or activity related to this research may be conducted outside of these dates. *All informed consent forms used in this study must carry the HREC assigned number and duration of HREC approval of the study.* **If this is a multi-year research, endeavour to submit your annual report to the HREC early in order to obtain renewal of your approval and avoid disruption of your research.**

The National Code for Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations and with the tenets of the Code including ensuring that all adverse events are reported promptly to the HREC. No changes are permitted in the research without prior approval by the HREC except in circumstances outlined in the Code. The HREC reserves the right to conduct compliance visit your research site without previous notification.

Signed

Clement Adebamowo BMChB Hons (Jos), FWACS, FACS, DSc (Harvard)
Chairman, National Health Research Ethics Committee of Nigeria (NHREC)

Department of Health Planning, Research & Statistics
Federal Ministry of Health
11th Floor, Federal Secretariat Complex Phase II
Ahmadu Bello Way Abuja

Tel: +234-09-523-0367
E-mail: chairman@nhrec.net, secretary@nhrec.net, desk officer@nhrec.net.
URL: http://www.nhrec.net.

Appendix 8: Completion certificate (Nigerian National Code for Health Research Ethics)

West African Bioethics

Monday, May 11, 2015

NCHRE Training Trial

Certificate of Completion

In recognition of successful completion of the revision of the Nigerian National Code for Health Research Ethics online training program of the West African Bioethics Training Program and the National Health Research Ethics Committee of Nigeria. This certifies that

Eddy Ighele Awire

- reviewed regulatory and informational documents on human-subject protection
- passed a quiz on the responsible conduct of human studies
- signed a statement of commitment to the protection of the rights and welfare of human subjects participating in research.

Dr. Clement A. Adebamowo
BM ChB (Hons), FWACS FACS ScD
Professor of Surgery
Director, West African Bioethics Training Program

Cc: Program Administrator, WAB

Appendix 9: Completion certificate (Human Subject Protection Education)

West African Bioethics

Monday, May 11, 2015

NCHRE Training Trial

Certificate of Completion

In recognition of successful completion of the revision of the Nigerian National Code for Health Research Ethics online training program of the West African Bioethics Training Program and the National Health Research Ethics Committee of Nigeria. This certifies that

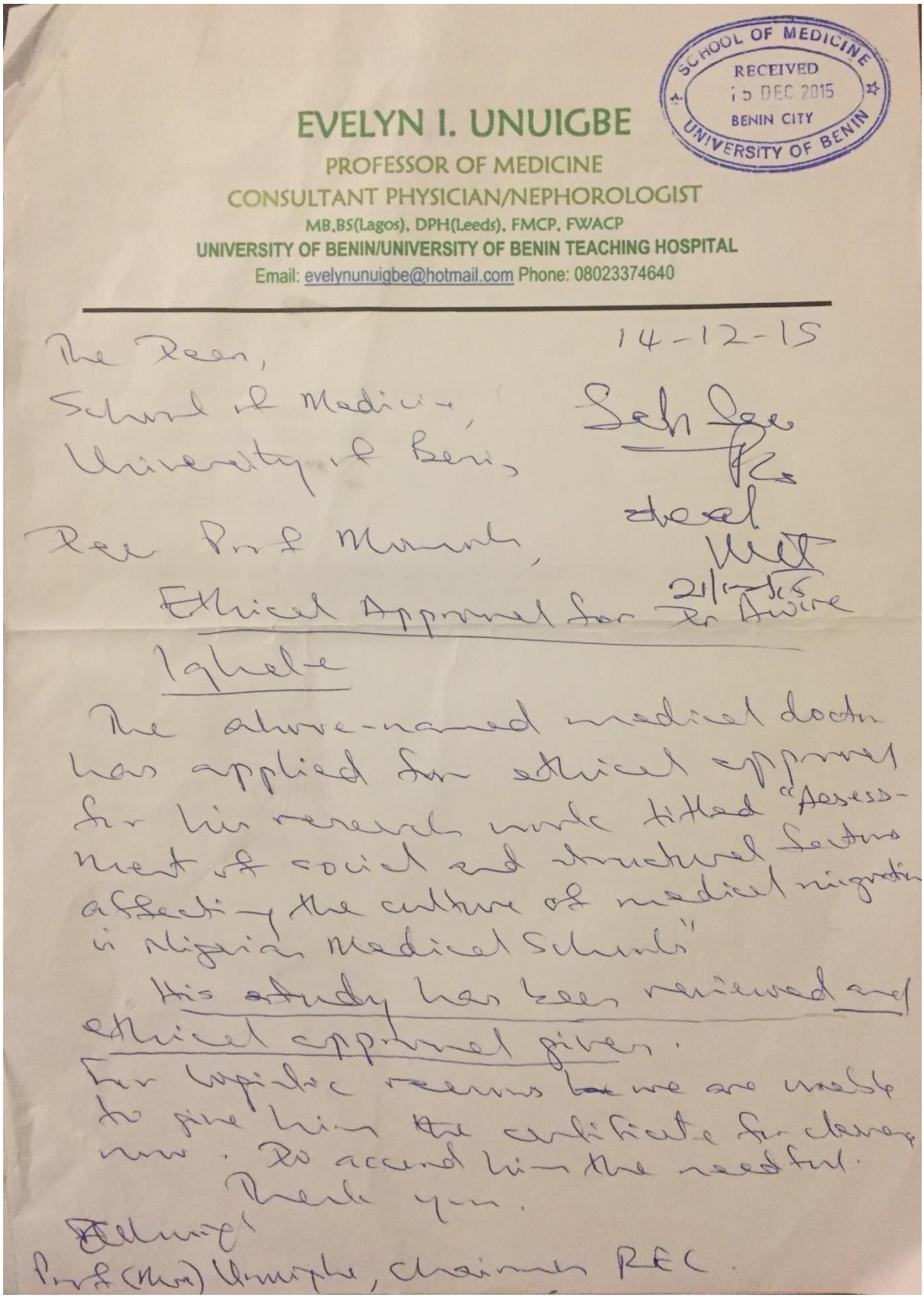
Eddy Ighele Awire

- reviewed regulatory and informational documents on human-subject protection
- passed a quiz on the responsible conduct of human studies
- signed a statement of commitment to the protection of the rights and welfare of human subjects participating in research.

Dr. Clement A. Adebamowo
BM ChB (Hons), FWACS FACS ScD
Professor of Surgery
Director, West African Bioethics Training Program

Cc: Program Administrator, WAB

Appendix 10: Ethical approval (University of Benin)



SCHOOL OF MEDICINE
RECEIVED
15 DEC 2015
BENIN CITY
UNIVERSITY OF BENIN

EVELYN I. UNUIGBE
PROFESSOR OF MEDICINE
CONSULTANT PHYSICIAN/NEPHOROLOGIST
MB,BS(Lagos), DPH(Leeds), FMCP, FWACP
UNIVERSITY OF BENIN/UNIVERSITY OF BENIN TEACHING HOSPITAL
Email: evelynunuigbe@hotmail.com Phone: 08023374640

14-12-15

The Dean,
School of Medicine,
University of Benin,

Sch Lge
Dean
Med
21/12/15

Dear Prof Munuh,

Ethical Approval for Dr Awire Ighele

The above-named medical doctor has applied for ethical approval for his research work titled "Assessment of social and structural factors affecting the culture of medical migration in Nigerian Medical Schools"

His study has been reviewed and ethical approval given.

For logistic reasons we are unable to give him the certificate for collection now. Do accord him the needful.

Thank you.

Prof (Mrs) Unuigbe, Chairman REC.

Appendix 11: Ethical approval (University of Benin)

UNIVERSITY OF BENIN, BENIN CITY, NIGERIA

DEAN'S OFFICE
SCHOOL OF MEDICINE
COLLEGE OF MEDICAL SCIENCES

Dean: Professor Moses I. Momoh
MB:BS (Benin) fwacs;fics

School Secretary: Barr. (Mrs.) C.O. Agbonifo
LLB; BL

P.M.B. 1154,Benin City
Cables & Telegrams: Uniben Benin
Telex: 41365 Uniben NG.
Tel: 234 052 602973

Our Ref:_____

Your Ref:_____

Date: 21st December 2015

Dr. E.I. Awire,
Institute for International Health & Development,
School of Health Sciences,
Queen Margaret University, Edinburgh,
Queen Margaret University Drive,
Musselburgh,
East Lothian EH2I 6UU

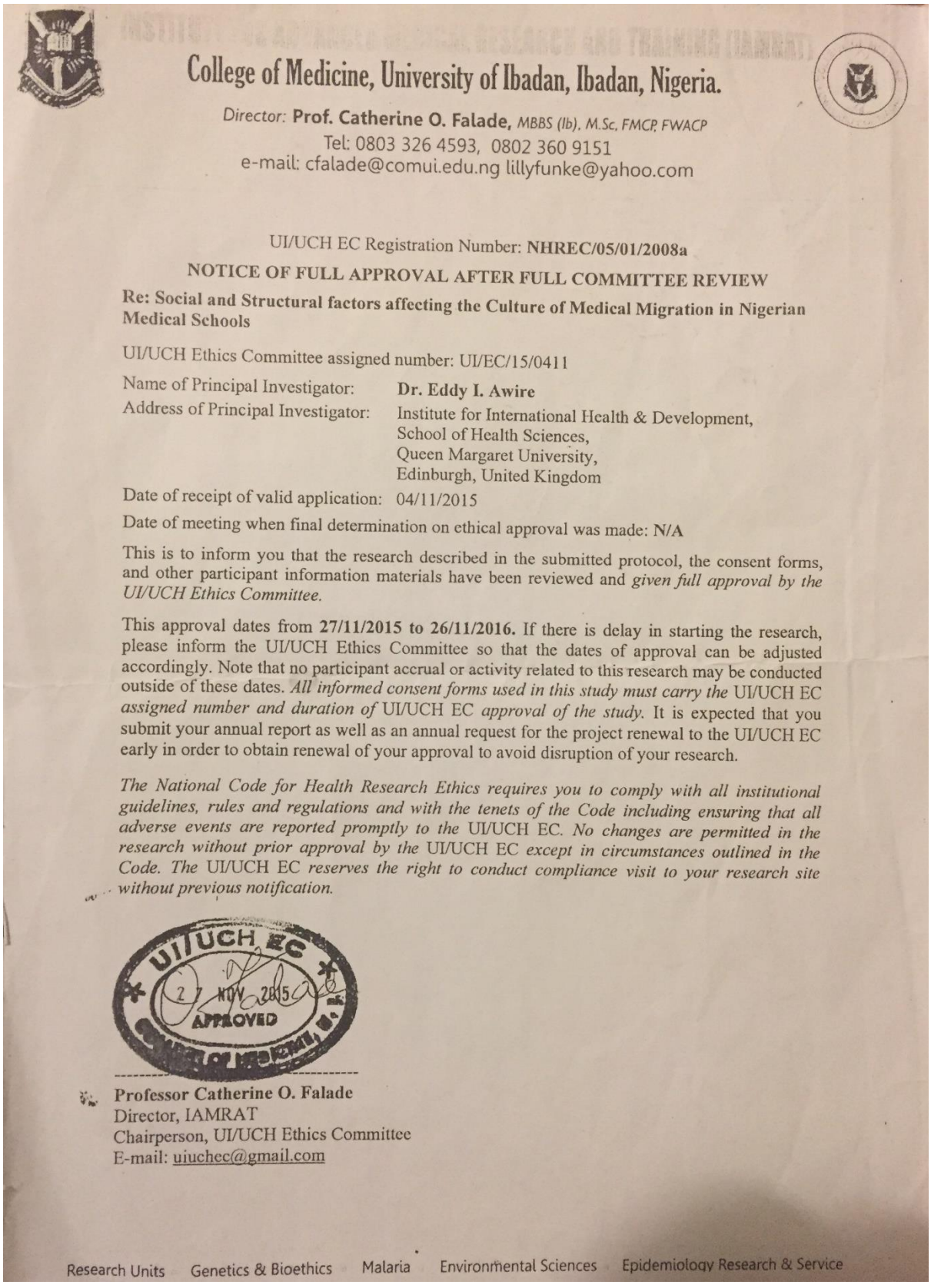
REQUEST FOR DATA ON ECFMG VERIFICATION REQUESTS

This is to inform you that approval has been given for you to have access to data on request for **ECFMG** verification in the School of Medicine, for the purpose of your research study toward your Ph.D programme.

Thank you.

Barr. (Mrs.) C.O. Agbonifo
PAR/School Secretary

Appendix 12: Ethical approval (University of Ibadan)



College of Medicine, University of Ibadan, Ibadan, Nigeria.

Director: **Prof. Catherine O. Falade,** *MBBS (Ib), M.Sc, FMCP, FWACP*
Tel: 0803 326 4593, 0802 360 9151
e-mail: cfalade@comui.edu.ng lillyfunke@yahoo.com

UI/UCH EC Registration Number: **NHREC/05/01/2008a**

NOTICE OF FULL APPROVAL AFTER FULL COMMITTEE REVIEW

Re: Social and Structural factors affecting the Culture of Medical Migration in Nigerian Medical Schools

UI/UCH Ethics Committee assigned number: UI/EC/15/0411

Name of Principal Investigator: **Dr. Eddy I. Awire**
Address of Principal Investigator: Institute for International Health & Development, School of Health Sciences, Queen Margaret University, Edinburgh, United Kingdom

Date of receipt of valid application: 04/11/2015

Date of meeting when final determination on ethical approval was made: **N/A**

This is to inform you that the research described in the submitted protocol, the consent forms, and other participant information materials have been reviewed and *given full approval by the UI/UCH Ethics Committee.*

This approval dates from **27/11/2015 to 26/11/2016.** If there is delay in starting the research, please inform the UI/UCH Ethics Committee so that the dates of approval can be adjusted accordingly. Note that no participant accrual or activity related to this research may be conducted outside of these dates. *All informed consent forms used in this study must carry the* UI/UCH EC *assigned number and duration of* UI/UCH EC *approval of the study.* It is expected that you submit your annual report as well as an annual request for the project renewal to the UI/UCH EC early in order to obtain renewal of your approval to avoid disruption of your research.

The National Code for Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations and with the tenets of the Code including ensuring that all adverse events are reported promptly to the UI/UCH EC. *No changes are permitted in the research without prior approval by the* UI/UCH EC *except in circumstances outlined in the Code. The* UI/UCH EC *reserves the right to conduct compliance visit to your research site without previous notification.*

UI/UCH EC
27 NOV 2015
APPROVED

Professor Catherine O. Falade
Director, IAMRAT
Chairperson, UI/UCH Ethics Committee
E-mail: uiuchec@gmail.com

Research Units Genetics & Bioethics Malaria Environmental Sciences Epidemiology Research & Service

Appendix 13: Coding matrix

THEME	MNEMONIC CODES/Sub-codes	DESCRIPTION/OPERATIONAL RULES	
A system in place	**INST. SUPP.** *Over Post* *Succ_Alum_Emig* **FAM. & SOC. TIES** *Con_Con_Alum* **INF_ ALUM**	**Institutional support**: any reference to support from the universities or teaching hospitals, including overseas posting, recommendations, transcripts, references, and encouragements *Overseas Posting Experience: reference to experience of overseas posting* *Success of Alumni Emigre: reference to such success as reinforcement of a good standard medical education foundation, including describing it as a thing of pride* **Family and social ties**: reference to family and social connections and influences. *Continuing contact with alumni: reference to contact with alumni emigres* **Influence of alumni emigres and return migrants**: reference to alumni emigres and return migrants, their influence, contributions and being seen as role models	
The desire and quest to be the best	**DES_OUT_NIG.** **ACC_ST_ART** **BEST & RELEVANT**	**Personal desire to experience life outside Nigeria:** reference to desire to live and experience life outside Nigeria, including comparing life in Nigeria with life abroad. **Desire to have access to state of the art health facilities:** reference to the desire to access state of the art/modern health facilities, better diagnostic facilities **The desire to be the best and to be relevant:** reference to believing that to be the best and be relevant among	

		your colleagues you have to acquire more knowledge abroad; including comparing the quality of post-graduate training in Nigeria vs quality abroad	
Dysfunctional medical education	**DEF-MED-EDU** *Poor. Supp_Strt* *Poor_Training_Fac* **FREQ_IND_ACT.** **DIFF_TRAIN_PLC** **EXP_RESD_DOC** *Workload* *Rapp_Cons-Resd*	**Perception of the quality of medical education as deficient:** reference to poor quality of med education, deficient instructions, improvising, floored admission process, focus on passing exams, and the lack of familiarity with curriculum *Poor support structure***:** *reference poor support structure, including lack of mentorships, lack of functioning counselling and advisers.* *Poor train facilities: reference to deficient training facilities in schools and teaching hospitals* **Frequent industrial actions**: reference to strikes and how they affect and prolong training duration and quality. **Difficulty in getting training places**: reference to difficulty getting training places for both internships and residency training **Uninspiring experiences of resident doctors**: reference to the experiences of resident doctors during their training in Nigerian hospitals ***Heavy workload:*** *reference to the heavy workload of resident doctors and house officers, and time constraint in preparing for examinations.* ***Poor rapport between consultants and resident doctors:*** *reference to the poor rapport between senior and*	

		junior colleagues, including consultants talking down at residents, and too much hierarchy	
Economic and Social Mobility	**BEN_MIG.** **BEN_FAM.**	**Benefits to individual migrant:** reference to the social and economic benefits to the migrant, including a better quality of life and improved standing in the society. **Benefits to migrants' family**: reference to what the family benefits as a result of migration, including viewing migration as an investment in children and family's future, and enhanced travel opportunities for family members.	
Dissatisfaction with the general situation in Nigeria	**DECL_ECO_STAT** **QUAL_LIF** **CORR_NEP_FAV** **WEAK_HEA_SYST**	**Declining economic status of doctors**: reference to lack of employment opportunities, declining economic status of doctors, poor remunerations, medical practice in Nigeria not inspiring, and doctors not feeling fulfilled. **Poor quality of life:** reference to poor standard of living, the general system not working, security challenges, and poor power supply. **Corruption, nepotism and favouritism**: reference to corruption, nepotism, favouritism **Weak health system:** reference to a weak health system, lack of functioning health insurance, poor funding, lack of investment in health, poor patronage of healthcare system by leaders	
Preparing to leave	**PREP_TO_LEAVE**	**Preparing to leave**: reference to plans and preparations towards leaving Nigeria, including writing overseas qualifying exams and seriousness about leaving Nigeria.	

Appendix 14: Summary of key survey findings

Gender	Male n (%) 130 (61.6)	Females n (%) 81 (38.4)	X	X	X	Total n (%) 211 (100.0)
Marital status	Single n (%) 205 (97.2)	Married n (%) 6 (2.8)	X	X	X	211 (100.0)
Religion	Christianity n (%) 198 (93.8)	Islam n (%) 11 (5.2)	African tradition n (%) 1 (0.5)	None n (%) 1 (0.5)	X	211 (100.0)
Views on migration	Strongly negative n (%) 3 (1.4)	Negative n (%) 9 (4.3)	Neutral n (%) 65 (30.8)	Positive n (%) 116 (55.0)	Strongly positive n (%) 18 (8.5)	211 (100.0)
Aspirations to migrate	Strongly negative n (%) 5 (2.4)	Negative n (%) 27 (12.8)	Neutral n (%) 92 (43.6)	Positive n (%) 70 (33.2)	Strongly positive n (%) 17 (8.0)	211 (100.0)
Migration history	None n (%) 65 (30.8)	Neighbour n (%) 33 (15.6)	Friend or colleague n (%) 13 (6.2)	Extended family n (%) 53 (25.1)	Nuclear family n (%) 47 (22.3)	211 (100.0)
Reasons for studying medicine	Saving lives n (%) 128 (60.7)	Better income n (%) 11 (5.2)	Social Prestige n (%) 4 (1.9)	Family pressure n (%) 12 (5.7)	Childhood dream n (%) 8 (3.8)	Others n (%) 48 (22.7)

Appendix 15**:** Respondents' perceptions of medical education in Nigeria

Variable	**Excellent N (%)**	**Very Good N (%)**	**Good N (%)**	**Indifferent N (%)**	**Bad N (%)**
Experience studying medicine	26 (12.3)	70 (33.2)	88 (41.7)	23 (10.9)	4 (1.9)
Quality of instruction	5 (2.4)	34 (16.0)	113 (53.6)	28 (13.3)	31 (14.7)
Quality of training facilities XX	4 (1.9)	19 (9.0)	111 (52.6)	36 (17.1)	40 (19.0)
Quality of support	9 (4.3)	28 (13.3)	98 (46.4)	44 (20.9)	32 (15.2)
Relevance of curriculum	12 (5.7)	60 (28.4)	105 (49.8)	26 (12.3)	8 (3.8)

XX Missing response - 1 (0.5%)

Appendix 16: Breakdown of respondents' post-graduation career plans

Career plan post-graduation	**N (%)**
Full time practice in Nigeria	19 (9.0)
Specialty training in Nigeria	66 (31.3)
Research/academics in Nigeria	1 (0.5)
Full time practice abroad	11 (5.2)
Specialty training abroad	70 (33.2)
Research/academics abroad	8 (3.8)
Undecided	36 (17.0)
Total	211 (100%)

Appendix 17: SPSS output

VIEWS ON MIGRATION

QUALITY: ACADEMIC TRAINING FACILITIES * AGREGATE VIEW Crosstabulation

			AGREGATE VIEW			
			POSITIVE	NEGATIVE	INDIFFERENT	Total
QUALITY: ACADEMIC TRAINING FACILITIES	MISSING RESPONSE	Count	0	1	0	1
		Expected Count	.6	.1	.3	1.0
		% within QUALITY: ACADEMIC TRAINING FACILITIES	0.0%	100.0%	0.0%	100.0%
		% within AGREGATE VIEW	0.0%	8.3%	0.0%	0.5%
	EXCELLENT	Count	4	0	0	4
		Expected Count	2.5	.2	1.2	4.0
		% within QUALITY: ACADEMIC TRAINING FACILITIES	100.0%	0.0%	0.0%	100.0%
		% within AGREGATE VIEW	3.0%	0.0%	0.0%	1.9%
	VERY GOOD	Count	11	2	6	19
		Expected Count	12.1	1.1	5.9	19.0
		% within QUALITY: ACADEMIC TRAINING FACILITIES	57.9%	10.5%	31.6%	100.0%
		% within AGREGATE VIEW	8.2%	16.7%	9.2%	9.0%
	GOOD	Count	72	7	32	111
		Expected Count	70.5	6.3	34.2	111.0
		% within QUALITY: ACADEMIC TRAINING FACILITIES	64.9%	6.3%	28.8%	100.0%
		% within AGREGATE VIEW	53.7%	58.3%	49.2%	52.6%
	INDIFFERENT	Count	22	1	13	36
		Expected Count	22.9	2.0	11.1	36.0
		% within QUALITY: ACADEMIC TRAINING FACILITIES	61.1%	2.8%	36.1%	100.0%
		% within AGREGATE VIEW	16.4%	8.3%	20.0%	17.1%
	BAD	Count	25	1	14	40
		Expected Count	25.4	2.3	12.3	40.0
		% within QUALITY: ACADEMIC TRAINING FACILITIES	62.5%	2.5%	35.0%	100.0%
		% within AGREGATE VIEW	18.7%	8.3%	21.5%	19.0%
Total		Count	134	12	65	211
		Expected Count	134.0	12.0	65.0	211.0
		% within QUALITY: ACADEMIC TRAINING FACILITIES	63.5%	5.7%	30.8%	100.0%
		% within AGREGATE VIEW	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.857[a]	10	.016
Likelihood Ratio	12.476	10	.254
Linear-by-Linear Association	.595	1	.440
N of Valid Cases	211		

a. 9 cells (50.0%) have expected count less than 5. The minimum expected count is .06.

To test the relationships (associations) between the variables the Pearson Chi-Square Tests were employed, with significance levels at $p < 0.05$

QUALITY: SUPPORT FROM STAFF * AGREGATE VIEW Crosstabulation

			AGREGATE VIEW			
			POSITIVE	NEGATIVE	INDIFFERENT	Total
QUALITY: SUPPORT FROM STAFF	EXCELLENT	Count	7	2	0	9
		Expected Count	5.7	.5	2.8	9.0
		% within QUALITY: SUPPORT FROM STAFF	77.8%	22.2%	0.0%	100.0%
		% within AGREGATE VIEW	5.2%	16.7%	0.0%	4.3%
	VERY GOOD	Count	20	4	4	28
		Expected Count	17.8	1.6	8.6	28.0
		% within QUALITY: SUPPORT FROM STAFF	71.4%	14.3%	14.3%	100.0%
		% within AGREGATE VIEW	14.9%	33.3%	6.2%	13.3%
	GOOD	Count	58	4	36	98
		Expected Count	62.2	5.6	30.2	98.0
		% within QUALITY: SUPPORT FROM STAFF	59.2%	4.1%	36.7%	100.0%
		% within AGREGATE VIEW	43.3%	33.3%	55.4%	46.4%
	INDIFFERENT	Count	27	2	15	44
		Expected Count	27.9	2.5	13.6	44.0
		% within QUALITY: SUPPORT FROM STAFF	61.4%	4.5%	34.1%	100.0%
		% within AGREGATE VIEW	20.1%	16.7%	23.1%	20.9%
	BAD	Count	22	0	10	32
		Expected Count	20.3	1.8	9.9	32.0
		% within QUALITY: SUPPORT FROM STAFF	68.8%	0.0%	31.3%	100.0%
		% within AGREGATE VIEW	16.4%	0.0%	15.4%	15.2%
Total		Count	134	12	65	211
		Expected Count	134.0	12.0	65.0	211.0
		% within QUALITY: SUPPORT FROM STAFF	63.5%	5.7%	30.8%	100.0%
		% within AGREGATE VIEW	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.883[a]	8	.022
Likelihood Ratio	20.119	8	.010
Linear-by-Linear Association	1.114	1	.291
N of Valid Cases	211		

a. 5 cells (33.3%) have expected count less than 5. The minimum expected count is .51.

AGREGATE VIEW * RESPONDENT'S RELIGION Crosstabulation

			RESPONDENT'S RELIGION				
			CHRISTIAN	ISLAM	AFRICAN TRADITIONAL	NONE	Total
AGREGATE VIEW	POSITIVE	Count	127	6	0	1	134
		Expected Count	125.7	7.0	.6	.6	134.0
		% within AGREGATE VIEW	94.8%	4.5%	0.0%	0.7%	100.0%
		% within RESPONDENT'S RELIGION	64.1%	54.5%	0.0%	100.0%	63.5%
	NEGATIVE	Count	11	0	1	0	12
		Expected Count	11.3	.6	.1	.1	12.0
		% within AGREGATE VIEW	91.7%	0.0%	8.3%	0.0%	100.0%
		% within RESPONDENT'S RELIGION	5.6%	0.0%	100.0%	0.0%	5.7%
	INDIFFERENT	Count	60	5	0	0	65
		Expected Count	61.0	3.4	.3	.3	65.0
		% within AGREGATE VIEW	92.3%	7.7%	0.0%	0.0%	100.0%
		% within RESPONDENT'S RELIGION	30.3%	45.5%	0.0%	0.0%	30.8%
Total		Count	198	11	1	1	211
		Expected Count	198.0	11.0	1.0	1.0	211.0
		% within AGREGATE VIEW	93.8%	5.2%	0.5%	0.5%	100.0%
		% within RESPONDENT'S RELIGION	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.724[a]	6	.005
Likelihood Ratio	8.742	6	.189
Linear-by-Linear Association	.013	1	.911
N of Valid Cases	211		

a. 8 cells (66.7%) have expected count less than 5. The minimum expected count is .06.

RESPONDENT'S GENDER * AGREGATE VIEW Crosstabulation

			AGREGATE VIEW			
			POSITIVE	NEGATIVE	INDIFFERENT	Total
RESPONDENT'S GENDER	MALE	Count	84	7	39	130
		Expected Count	82.6	7.4	40.0	130.0
		% within RESPONDENT'S GENDER	64.6%	5.4%	30.0%	100.0%
		% within AGREGATE VIEW	62.7%	58.3%	60.0%	61.6%
		% of Total	39.8%	3.3%	18.5%	61.6%
	FEMALE	Count	50	5	26	81
		Expected Count	51.4	4.6	25.0	81.0
		% within RESPONDENT'S GENDER	61.7%	6.2%	32.1%	100.0%
		% within AGREGATE VIEW	37.3%	41.7%	40.0%	38.4%
		% of Total	23.7%	2.4%	12.3%	38.4%
Total		Count	134	12	65	211
		Expected Count	134.0	12.0	65.0	211.0
		% within RESPONDENT'S GENDER	63.5%	5.7%	30.8%	100.0%
		% within AGREGATE VIEW	100.0%	100.0%	100.0%	100.0%
		% of Total	63.5%	5.7%	30.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.191[a]	2	.909
Likelihood Ratio	.191	2	.909
Linear-by-Linear Association	.148	1	.701
N of Valid Cases	211		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 4.61.

AGREGATE VIEW * FAMILIY MEMBER ABROAD? Crosstabulation

			FAMILIY MEMBER ABROAD?			
			MISSING RESPONSE	YES	NO	Total
AGREGATE VIEW	POSITIVE	Count	1	103	30	134
		Expected Count	1.3	99.7	33.0	134.0
		% within AGREGATE VIEW	0.7%	76.9%	22.4%	100.0%
		% within FAMILIY MEMBER ABROAD?	50.0%	65.6%	57.7%	63.5%
		% of Total	0.5%	48.8%	14.2%	63.5%
	NEGATIVE	Count	0	9	3	12
		Expected Count	.1	8.9	3.0	12.0
		% within AGREGATE VIEW	0.0%	75.0%	25.0%	100.0%
		% within FAMILIY MEMBER ABROAD?	0.0%	5.7%	5.8%	5.7%
		% of Total	0.0%	4.3%	1.4%	5.7%
	INDIFFERENT	Count	1	45	19	65
		Expected Count	.6	48.4	16.0	65.0
		% within AGREGATE VIEW	1.5%	69.2%	29.2%	100.0%
		% within FAMILIY MEMBER ABROAD?	50.0%	28.7%	36.5%	30.8%
		% of Total	0.5%	21.3%	9.0%	30.8%
Total		Count	2	157	52	211
		Expected Count	2.0	157.0	52.0	211.0
		% within AGREGATE VIEW	0.9%	74.4%	24.6%	100.0%
		% within FAMILIY MEMBER ABROAD?	100.0%	100.0%	100.0%	100.0%
		% of Total	0.9%	74.4%	24.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.586[a]	4	.811
Likelihood Ratio	1.648	4	.800
Linear-by-Linear Association	.808	1	.369
N of Valid Cases	211		

a. 4 cells (44.4%) have expected count less than 5. The minimum expected count is .11.

ASPIRATION TO MIGRATE

RESPONDENT'S ASPIRATION TO MIGRATE * RESPONDENT'S GENDER Crosstabulation

			RESPONDENT'S GENDER		
			MALE	FEMALE	Total
RESPONDENT'S ASPIRATION TO MIGRATE	STRONGLY NEGATIVE	Count	4	1	5
		Expected Count	3.1	1.9	5.0
		% within RESPONDENT'S ASPIRATION TO MIGRATE	80.0%	20.0%	100.0%
		% within RESPONDENT'S GENDER	3.1%	1.2%	2.4%
	NEGATIVE	Count	10	17	27
		Expected Count	16.6	10.4	27.0
		% within RESPONDENT'S ASPIRATION TO MIGRATE	37.0%	63.0%	100.0%
		% within RESPONDENT'S GENDER	7.7%	21.0%	12.8%
	NEITHER POSITIVE NOR NEGATIVE	Count	58	34	92
		Expected Count	56.7	35.3	92.0
		% within RESPONDENT'S ASPIRATION TO MIGRATE	63.0%	37.0%	100.0%
		% within RESPONDENT'S GENDER	44.6%	42.0%	43.6%
	POSITIVE	Count	43	27	70
		Expected Count	43.1	26.9	70.0
		% within RESPONDENT'S ASPIRATION TO MIGRATE	61.4%	38.6%	100.0%
		% within RESPONDENT'S GENDER	33.1%	33.3%	33.2%
	STRONGLY POSITIVE	Count	15	2	17
		Expected Count	10.5	6.5	17.0
		% within RESPONDENT'S ASPIRATION TO MIGRATE	88.2%	11.8%	100.0%
		% within RESPONDENT'S GENDER	11.5%	2.5%	8.1%
Total		Count	130	81	211
		Expected Count	130.0	81.0	211.0
		% within RESPONDENT'S ASPIRATION TO MIGRATE	61.6%	38.4%	100.0%
		% within RESPONDENT'S GENDER	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.784[a]	4	.012
Likelihood Ratio	13.555	4	.009
Linear-by-Linear Association	4.838	1	.028
N of Valid Cases	211		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 1.92.

QUALITY: INSTRUCTIONS * RESPONDENT'S ASPIRATION TO MIGRATE Crosstabulation

			RESPONDENT'S ASPIRATION TO MIGRATE					
			STRONGLY NEGATIVE	NEGATIVE	NEITHER POSITIVE NOR NEGATIVE	POSITIVE	STRONGLY POSITIVE	Total
QUALITY: INSTRUCTIONS	EXCELLENT	Count	1	0	1	2	1	5
		Expected Count	.1	.6	2.2	1.7	.4	5.0
		% within QUALITY: INSTRUCTIONS	20.0%	0.0%	20.0%	40.0%	20.0%	100.0%
		% within RESPONDENT'S ASPIRATION TO MIGRATE	20.0%	0.0%	1.1%	2.9%	5.9%	2.4%
	VERY GOOD	Count	2	2	16	7	7	34
		Expected Count	.8	4.4	14.8	11.3	2.7	34.0
		% within QUALITY: INSTRUCTIONS	5.9%	5.9%	47.1%	20.6%	20.6%	100.0%
		% within RESPONDENT'S ASPIRATION TO MIGRATE	40.0%	7.4%	17.4%	10.0%	41.2%	16.1%
	GOOD	Count	2	13	52	42	4	113
		Expected Count	2.7	14.5	49.3	37.5	9.1	113.0
		% within QUALITY: INSTRUCTIONS	1.8%	11.5%	46.0%	37.2%	3.5%	100.0%
		% within RESPONDENT'S ASPIRATION TO MIGRATE	40.0%	48.1%	56.5%	60.0%	23.5%	53.6%
	INDIFFERENT	Count	0	8	9	10	1	28
		Expected Count	.7	3.6	12.2	9.3	2.3	28.0
		% within QUALITY: INSTRUCTIONS	0.0%	28.6%	32.1%	35.7%	3.6%	100.0%
		% within RESPONDENT'S ASPIRATION TO MIGRATE	0.0%	29.6%	9.8%	14.3%	5.9%	13.3%
	BAD	Count	0	4	14	9	4	31
		Expected Count	.7	4.0	13.5	10.3	2.5	31.0
		% within QUALITY: INSTRUCTIONS	0.0%	12.9%	45.2%	29.0%	12.9%	100.0%
		% within RESPONDENT'S ASPIRATION TO MIGRATE	0.0%	14.8%	15.2%	12.9%	23.5%	14.7%
Total		Count	5	27	92	70	17	211
		Expected Count	5.0	27.0	92.0	70.0	17.0	211.0
		% within QUALITY: INSTRUCTIONS	2.4%	12.8%	43.6%	33.2%	8.1%	100.0%
		% within RESPONDENT'S ASPIRATION TO MIGRATE	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	33.574[a]	16	.006
Likelihood Ratio	28.968	16	.024
Linear-by-Linear Association	.085	1	.770
N of Valid Cases	211		

a. 15 cells (60.0%) have expected count less than 5. The minimum expected count is .12.

EXPERIENCE OF STUDYING MEDICINE * RESPONDENT'S ASPIRATION TO MIGRATE Crosstabulation

			RESPONDENT'S ASPIRATION TO MIGRATE					
			STRONGLY NEGATIVE	NEGATIVE	NEITHER POSITIVE NOR NEGATIVE	POSITIVE	STRONGLY POSITIVE	Total
EXPERIENCE OF STUDYING MEDICINE	EXCELLENT	Count	3	4	8	5	6	26
		Expected Count	.6	3.3	11.3	8.6	2.1	26.0
		% within EXPERIENCE OF STUDYING MEDICINE	11.5%	15.4%	30.8%	19.2%	23.1%	100.0%
		% within RESPONDENT'S ASPIRATION TO MIGRATE	60.0%	14.8%	8.7%	7.1%	35.3%	12.3%
	VERY GOOD	Count	2	7	30	26	5	70
		Expected Count	1.7	9.0	30.5	23.2	5.6	70.0
		% within EXPERIENCE OF STUDYING MEDICINE	2.9%	10.0%	42.9%	37.1%	7.1%	100.0%
		% within RESPONDENT'S ASPIRATION TO MIGRATE	40.0%	25.9%	32.6%	37.1%	29.4%	33.2%
	GOOD	Count	0	12	40	32	4	88
		Expected Count	2.1	11.3	38.4	29.2	7.1	88.0
		% within EXPERIENCE OF STUDYING MEDICINE	0.0%	13.6%	45.5%	36.4%	4.5%	100.0%
		% within RESPONDENT'S ASPIRATION TO MIGRATE	0.0%	44.4%	43.5%	45.7%	23.5%	41.7%
	INDIFFERENT	Count	0	3	11	7	2	23
		Expected Count	.5	2.9	10.0	7.6	1.9	23.0
		% within EXPERIENCE OF STUDYING MEDICINE	0.0%	13.0%	47.8%	30.4%	8.7%	100.0%
		% within RESPONDENT'S ASPIRATION TO MIGRATE	0.0%	11.1%	12.0%	10.0%	11.8%	10.9%
	BAD	Count	0	1	3	0	0	4
		Expected Count	.1	.5	1.7	1.3	.3	4.0
		% within EXPERIENCE OF STUDYING MEDICINE	0.0%	25.0%	75.0%	0.0%	0.0%	100.0%
		% within RESPONDENT'S ASPIRATION TO MIGRATE	0.0%	3.7%	3.3%	0.0%	0.0%	1.9%
Total		Count	5	27	92	70	17	211
		Expected Count	5.0	27.0	92.0	70.0	17.0	211.0
		% within EXPERIENCE OF STUDYING MEDICINE	2.4%	12.8%	43.6%	33.2%	8.1%	100.0%
		% within RESPONDENT'S ASPIRATION TO MIGRATE	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.695[a]	16	.034
Likelihood Ratio	25.491	16	.062
Linear-by-Linear Association	.124	1	.724
N of Valid Cases	211		

a. 13 cells (52.0%) have expected count less than 5. The minimum expected count is .09.

FAMILIY MEMBER ABROAD? * AGGREGATE ASPIRATION Crosstabulation

			AGGREGATE ASPIRATION			
			POSITIVE	NEGATIVE	INDIFFERENT	Total
FAMILIY MEMBER ABROAD?	MISSING RESPONSE	Count	0	0	2	2
		Expected Count	.8	.3	.9	2.0
		% within FAMILIY MEMBER ABROAD?	0.0%	0.0%	100.0%	100.0%
		% within AGGREGATE ASPIRATION	0.0%	0.0%	2.2%	0.9%
	YES	Count	73	18	66	157
		Expected Count	65.5	23.1	68.5	157.0
		% within FAMILIY MEMBER ABROAD?	46.5%	11.5%	42.0%	100.0%
		% within AGGREGATE ASPIRATION	83.0%	58.1%	71.7%	74.4%
	NO	Count	15	13	24	52
		Expected Count	21.7	7.6	22.7	52.0
		% within FAMILIY MEMBER ABROAD?	28.8%	25.0%	46.2%	100.0%
		% within AGGREGATE ASPIRATION	17.0%	41.9%	26.1%	24.6%
Total		Count	88	31	92	211
		Expected Count	88.0	31.0	92.0	211.0
		% within FAMILIY MEMBER ABROAD?	41.7%	14.7%	43.6%	100.0%
		% within AGGREGATE ASPIRATION	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.552[a]	4	.032
Likelihood Ratio	10.938	4	.027
Linear-by-Linear Association	1.014	1	.314
N of Valid Cases	211		

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is .29.

PRACTICED ABROAD? * AGGREGATE ASPIRATION Crosstabulation

			AGGREGATE ASPIRATION			
			POSITIVE	NEGATIVE	INDIFFERENT	Total
PRACTICED ABROAD?	MISSING RESPONSE	Count	0	1	1	2
		Expected Count	.8	.3	.9	2.0
		% within PRACTICED ABROAD?	0.0%	50.0%	50.0%	100.0%
		% within AGGREGATE ASPIRATION	0.0%	3.2%	1.1%	0.9%
	YES	Count	48	8	32	88
		Expected Count	36.7	12.9	38.4	88.0
		% within PRACTICED ABROAD?	54.5%	9.1%	36.4%	100.0%
		% within AGGREGATE ASPIRATION	54.5%	25.8%	34.8%	41.7%
	NO	Count	40	22	59	121
		Expected Count	50.5	17.8	52.8	121.0
		% within PRACTICED ABROAD?	33.1%	18.2%	48.8%	100.0%
		% within AGGREGATE ASPIRATION	45.5%	71.0%	64.1%	57.3%
Total		Count	88	31	92	211
		Expected Count	88.0	31.0	92.0	211.0
		% within PRACTICED ABROAD?	41.7%	14.7%	43.6%	100.0%
		% within AGGREGATE ASPIRATION	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.876[a]	4	.012
Likelihood Ratio	13.170	4	.010
Linear-by-Linear Association	5.177	1	.023
N of Valid Cases	211		

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is .29.

AGGREGATE ASPIRATION * QUALITY: ACADEMIC TRAINING FACILITIES Crosstabulation

			QUALITY: ACADEMIC TRAINING FACILITIES						
			MISSING RESPONSE	EXCELLENT	VERY GOOD	GOOD	INDIFFERENT	BAD	Total
AGGREGATE ASPIRATION	POSITIVE	Count	0	3	12	41	16	16	88
		Expected Count	.4	1.7	7.9	46.3	15.0	16.7	88.0
		% within AGGREGATE ASPIRATION	0.0%	3.4%	13.6%	46.6%	18.2%	18.2%	100.0%
		% within QUALITY: ACADEMIC TRAINING FACILITIES	0.0%	75.0%	63.2%	36.9%	44.4%	40.0%	41.7%
		% of Total	0.0%	1.4%	5.7%	19.4%	7.6%	7.6%	41.7%
	NEGATIVE	Count	1	0	2	14	7	7	31
		Expected Count	.1	.6	2.8	16.3	5.3	5.9	31.0
		% within AGGREGATE ASPIRATION	3.2%	0.0%	6.5%	45.2%	22.6%	22.6%	100.0%
		% within QUALITY: ACADEMIC TRAINING FACILITIES	100.0%	0.0%	10.5%	12.6%	19.4%	17.5%	14.7%
		% of Total	0.5%	0.0%	0.9%	6.6%	3.3%	3.3%	14.7%
	INDIFFERENT	Count	0	1	5	56	13	17	92
		Expected Count	.4	1.7	8.3	48.4	15.7	17.4	92.0
		% within AGGREGATE ASPIRATION	0.0%	1.1%	5.4%	60.9%	14.1%	18.5%	100.0%
		% within QUALITY: ACADEMIC TRAINING FACILITIES	0.0%	25.0%	26.3%	50.5%	36.1%	42.5%	43.6%
		% of Total	0.0%	0.5%	2.4%	26.5%	6.2%	8.1%	43.6%
Total		Count	1	4	19	111	36	40	211
		Expected Count	1.0	4.0	19.0	111.0	36.0	40.0	211.0
		% within AGGREGATE ASPIRATION	0.5%	1.9%	9.0%	52.6%	17.1%	19.0%	100.0%
		% within QUALITY: ACADEMIC TRAINING FACILITIES	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	0.5%	1.9%	9.0%	52.6%	17.1%	19.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.859[a]	10	.137
Likelihood Ratio	13.229	10	.211
Linear-by-Linear Association	.399	1	.528
N of Valid Cases	211		

a. 7 cells (38.9%) have expected count less than 5. The minimum expected count is .15.

AGGREGATE ASPIRATION * QUALITY: SUPPORT FROM STAFF Crosstabulation

			QUALITY: SUPPORT FROM STAFF					
			EXCELLENT	VERY GOOD	GOOD	INDIFFERENT	BAD	Total
AGGREGATE ASPIRATION	POSITIVE	Count	6	13	38	19	12	88
		Expected Count	3.8	11.7	40.9	18.4	13.3	88.0
		% within AGGREGATE ASPIRATION	6.8%	14.8%	43.2%	21.6%	13.6%	100.0%
		% within QUALITY: SUPPORT FROM STAFF	66.7%	46.4%	38.8%	43.2%	37.5%	41.7%
		% of Total	2.8%	6.2%	18.0%	9.0%	5.7%	41.7%
	NEGATIVE	Count	2	3	13	10	3	31
		Expected Count	1.3	4.1	14.4	6.5	4.7	31.0
		% within AGGREGATE ASPIRATION	6.5%	9.7%	41.9%	32.3%	9.7%	100.0%
		% within QUALITY: SUPPORT FROM STAFF	22.2%	10.7%	13.3%	22.7%	9.4%	14.7%
		% of Total	0.9%	1.4%	6.2%	4.7%	1.4%	14.7%
	INDIFFERENT	Count	1	12	47	15	17	92
		Expected Count	3.9	12.2	42.7	19.2	14.0	92.0
		% within AGGREGATE ASPIRATION	1.1%	13.0%	51.1%	16.3%	18.5%	100.0%
		% within QUALITY: SUPPORT FROM STAFF	11.1%	42.9%	48.0%	34.1%	53.1%	43.6%
		% of Total	0.5%	5.7%	22.3%	7.1%	8.1%	43.6%
Total		Count	9	28	98	44	32	211
		Expected Count	9.0	28.0	98.0	44.0	32.0	211.0
		% within AGGREGATE ASPIRATION	4.3%	13.3%	46.4%	20.9%	15.2%	100.0%
		% within QUALITY: SUPPORT FROM STAFF	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	4.3%	13.3%	46.4%	20.9%	15.2%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.376[a]	8	.312
Likelihood Ratio	9.925	8	.270
Linear-by-Linear Association	1.342	1	.247
N of Valid Cases	211		

a. 5 cells (33.3%) have expected count less than 5. The minimum expected count is 1.32.

MULTIPLE LINEAR REGRESSION

To investigate the joint effect of variables (taking into account any possible correlations among them), and to assess which of the significantly associated variables better predicts students' aspiration to migrate, a multiple linear regression analysis was performed, with respondents' 'aspirations to migrate' as the dependent variable.

Descriptive Statistics

	Mean	Std. Deviation	N
RESPONDENT'S ASPIRATION TO MIGRATE	26.05	6.460	211
RESPONDENT'S GENDER	1.38	.487	211
QUALITY: INSTRUCTIONS	3.22	.966	211
PLAN AFTER GRADUATING	4.00	2.067	211
NIGERIA OR ABROAD	1.76	.726	211
FAMILIY MEMBER ABROAD?	1.24	.448	211
PRACTICED ABROAD?	1.56	.516	211
RESPONDENTS FAMILY MIGRATION HISTORY	2.92	1.593	211
RESPONDENT'S VIEWS ON MIGRATION	25.66	4.910	211

Correlations

		RESPONDENT'S ASPIRATION TO MIGRATE	RESPONDENT'S GENDER	QUALITY: INSTRUCTIONS	PLAN AFTER GRADUATING	NIGERIA OR ABROAD	FAMILIY MEMBER ABROAD?	PRACTICED ABROAD?	RESPONDENTS FAMILY MIGRATION HISTORY	RESPONDENT'S VIEWS ON MIGRATION
Pearson Correlation	RESPONDENT'S ASPIRATION TO MIGRATE	1.000	-.164	-.020	.190	.153	-.154	-.150	.056	.506
	RESPONDENT'S GENDER	-.164	1.000	.044	-.054	-.033	-.091	-.032	.191	-.021
	QUALITY: INSTRUCTIONS	-.020	.044	1.000	-.060	-.054	-.032	-.009	.039	-.005
	PLAN AFTER GRADUATING	.190	-.054	-.060	1.000	.937	-.022	-.159	.062	.153
	NIGERIA OR ABROAD	.153	-.033	-.054	.937	1.000	-.013	-.168	.046	.119
	FAMILIY MEMBER ABROAD?	-.154	-.091	-.032	-.022	-.013	1.000	.429	-.482	-.078
	PRACTICED ABROAD?	-.150	-.032	-.009	-.159	-.168	.429	1.000	-.643	-.122
	RESPONDENTS FAMILY MIGRATION HISTORY	.056	.191	.039	.062	.046	-.482	-.643	1.000	.065
	RESPONDENT'S VIEWS ON MIGRATION	.506	-.021	-.005	.153	.119	-.078	-.122	.065	1.000
Sig. (1-tailed)	RESPONDENT'S ASPIRATION TO MIGRATE	.	.009	.386	.003	.013	.013	.015	.208	.000
	RESPONDENT'S GENDER	.009	.	.263	.218	.319	.093	.323	.003	.379
	QUALITY: INSTRUCTIONS	.386	.263	.	.192	.220	.322	.448	.288	.474
	PLAN AFTER GRADUATING	.003	.218	.192	.	.000	.377	.010	.184	.013
	NIGERIA OR ABROAD	.013	.319	.220	.000	.	.423	.007	.254	.043
	FAMILIY MEMBER ABROAD?	.013	.093	.322	.377	.423	.	.000	.000	.129
	PRACTICED ABROAD?	.015	.323	.448	.010	.007	.000	.	.000	.038
	RESPONDENTS FAMILY MIGRATION HISTORY	.208	.003	.288	.184	.254	.000	.000	.	.174
	RESPONDENT'S VIEWS ON MIGRATION	.000	.379	.474	.013	.043	.129	.038	.174	.
N	RESPONDENT'S ASPIRATION TO MIGRATE	211	211	211	211	211	211	211	211	211
	RESPONDENT'S GENDER	211	211	211	211	211	211	211	211	211
	QUALITY: INSTRUCTIONS	211	211	211	211	211	211	211	211	211
	PLAN AFTER GRADUATING	211	211	211	211	211	211	211	211	211
	NIGERIA OR ABROAD	211	211	211	211	211	211	211	211	211
	FAMILIY MEMBER ABROAD?	211	211	211	211	211	211	211	211	211
	PRACTICED ABROAD?	211	211	211	211	211	211	211	211	211
	RESPONDENTS FAMILY MIGRATION HISTORY	211	211	211	211	211	211	211	211	211
	RESPONDENT'S VIEWS ON MIGRATION	211	211	211	211	211	211	211	211	211

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	RESPONDENT'S VIEWS ON MIGRATION	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	RESPONDENT'S GENDER	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	FAMILIY MEMBER ABROAD?	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: RESPONDENT'S ASPIRATION TO MIGRATE

Model Summary[d]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.506[a]	.256	.252	5.586
2	.529[b]	.279	.272	5.510
3	.544[c]	.296	.286	5.459

a. Predictors: (Constant), RESPONDENT'S VIEWS ON MIGRATION

b. Predictors: (Constant), RESPONDENT'S VIEWS ON MIGRATION, RESPONDENT'S GENDER

c. Predictors: (Constant), RESPONDENT'S VIEWS ON MIGRATION, RESPONDENT'S GENDER, FAMILIY MEMBER ABROAD?

d. Dependent Variable: RESPONDENT'S ASPIRATION TO MIGRATE

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2244.002	1	2244.002	71.927	.000[b]
	Residual	6520.424	209	31.198		
	Total	8764.427	210			
2	Regression	2448.787	2	1224.393	40.324	.000[c]
	Residual	6315.640	208	30.364		
	Total	8764.427	210			
3	Regression	2595.959	3	865.320	29.038	.000[d]
	Residual	6168.468	207	29.799		
	Total	8764.427	210			

a. Dependent Variable: RESPONDENT'S ASPIRATION TO MIGRATE

b. Predictors: (Constant), RESPONDENT'S VIEWS ON MIGRATION

c. Predictors: (Constant), RESPONDENT'S VIEWS ON MIGRATION, RESPONDENT'S GENDER

d. Predictors: (Constant), RESPONDENT'S VIEWS ON MIGRATION, RESPONDENT'S GENDER, FAMILIY MEMBER ABROAD?

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	8.967	2.051		4.372	.000	4.924	13.010
	RESPONDENT'S VIEWS ON MIGRATION	.666	.078	.506	8.481	.000	.511	.820
2	(Constant)	11.881	2.314		5.135	.000	7.320	16.443
	RESPONDENT'S VIEWS ON MIGRATION	.661	.077	.503	8.539	.000	.509	.814
	RESPONDENT'S GENDER	-2.026	.780	-.153	-2.597	.010	-3.564	-.488
3	(Constant)	14.787	2.639		5.604	.000	9.585	19.989
	RESPONDENT'S VIEWS ON MIGRATION	.648	.077	.492	8.413	.000	.496	.799
	RESPONDENT'S GENDER	-2.187	.776	-.165	-2.818	.005	-3.718	-.657
	FAMILIY MEMBER ABROAD?	-1.883	.847	-.131	-2.222	.027	-3.553	-.212

a. Dependent Variable: RESPONDENT'S ASPIRATION TO MIGRATE

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics: Tolerance
1	RESPONDENT'S GENDER	-.153[b]	-2.597	.010	-.177	1.000
	QUALITY: INSTRUCTIONS	-.018[b]	-.298	.766	-.021	1.000
	PLAN AFTER GRADUATING	.116[b]	1.926	.055	.132	.977
	NIGERIA OR ABROAD	.094[b]	1.574	.117	.108	.986
	FAMILIY MEMBER ABROAD?	-.115[b]	-1.936	.054	-.133	.994
	PRACTICED ABROAD?	-.090[b]	-1.499	.135	-.103	.985
	RESPONDENTS FAMILY MIGRATION HISTORY	.024[b]	.394	.694	.027	.996
2	QUALITY: INSTRUCTIONS	-.011[c]	-.189	.850	-.013	.998
	PLAN AFTER GRADUATING	.108[c]	1.819	.070	.125	.974
	NIGERIA OR ABROAD	.090[c]	1.517	.131	.105	.985
	FAMILIY MEMBER ABROAD?	-.131[c]	-2.222	.027	-.153	.985
	PRACTICED ABROAD?	-.095[c]	-1.613	.108	-.111	.984
	RESPONDENTS FAMILY MIGRATION HISTORY	.055[c]	.918	.360	.064	.959
3	QUALITY: INSTRUCTIONS	-.015[d]	-.254	.800	-.018	.997
	PLAN AFTER GRADUATING	.106[d]	1.803	.073	.125	.974
	NIGERIA OR ABROAD	.089[d]	1.515	.131	.105	.985
	PRACTICED ABROAD?	-.049[d]	-.753	.452	-.052	.808
	RESPONDENTS FAMILY MIGRATION HISTORY	-.009[d]	-.138	.890	-.010	.745

a. Dependent Variable: RESPONDENT'S ASPIRATION TO MIGRATE

b. Predictors in the Model: (Constant), RESPONDENT'S VIEWS ON MIGRATION

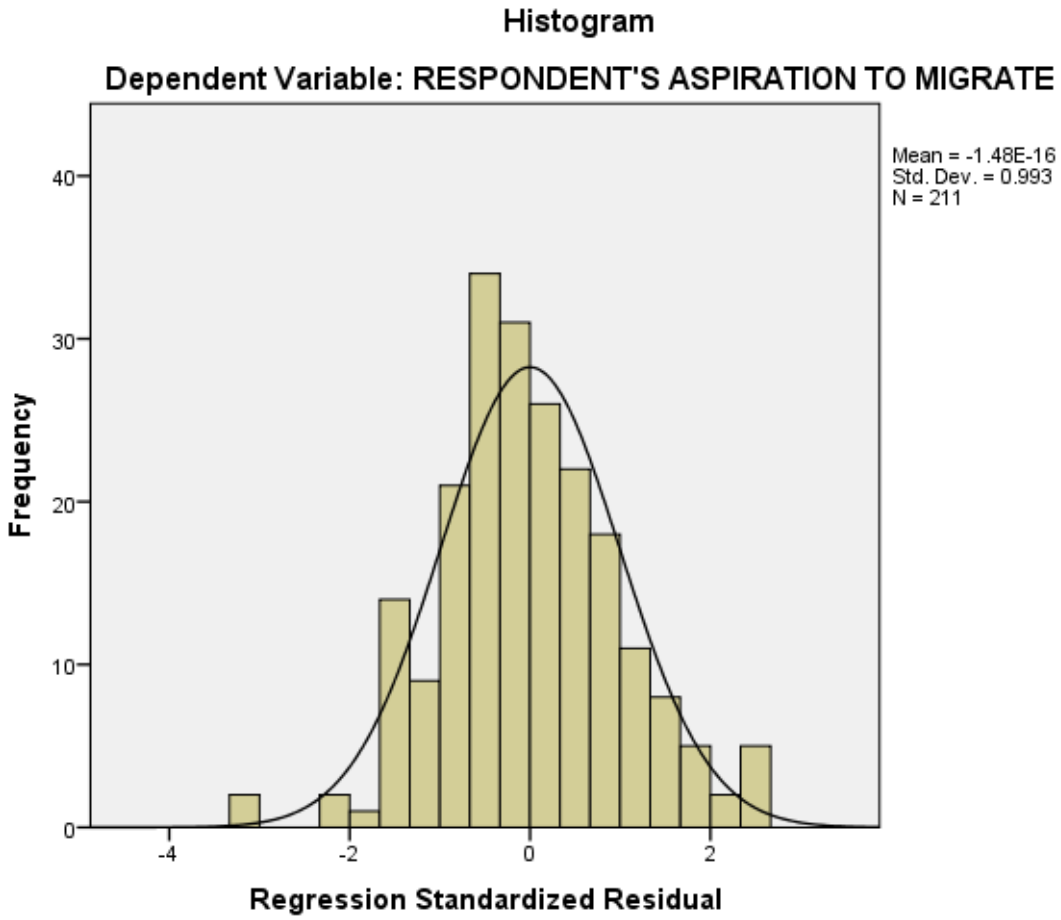
c. Predictors in the Model: (Constant), RESPONDENT'S VIEWS ON MIGRATION, RESPONDENT'S GENDER

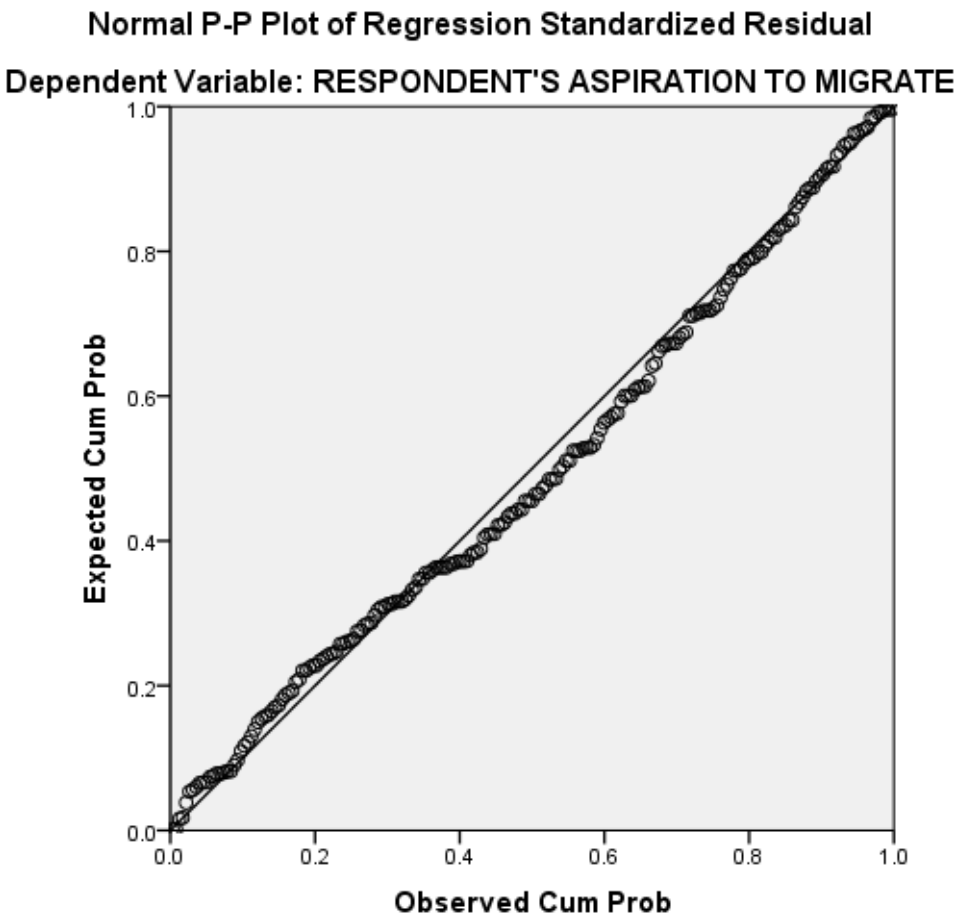
d. Predictors in the Model: (Constant), RESPONDENT'S VIEWS ON MIGRATION, RESPONDENT'S GENDER, FAMILIY MEMBER ABROAD?

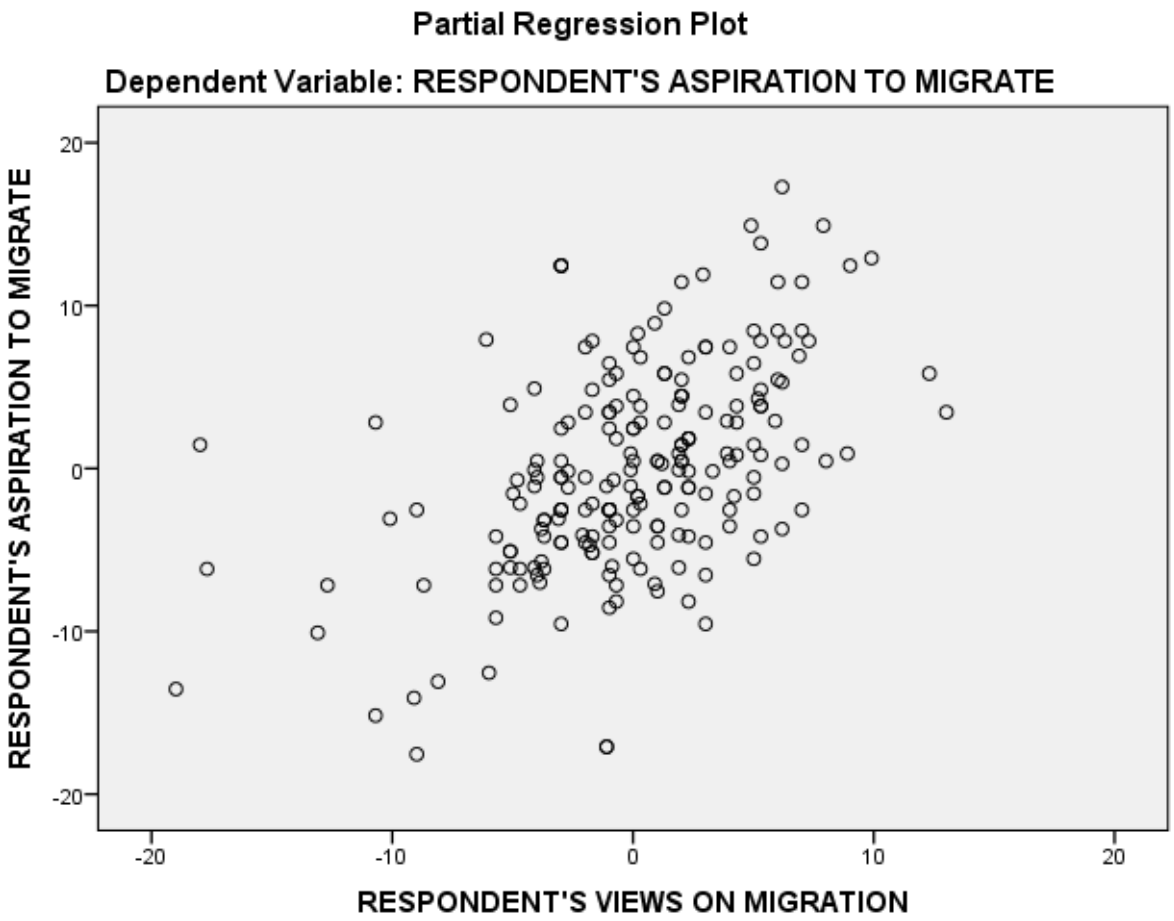
Residuals Statistics[a]

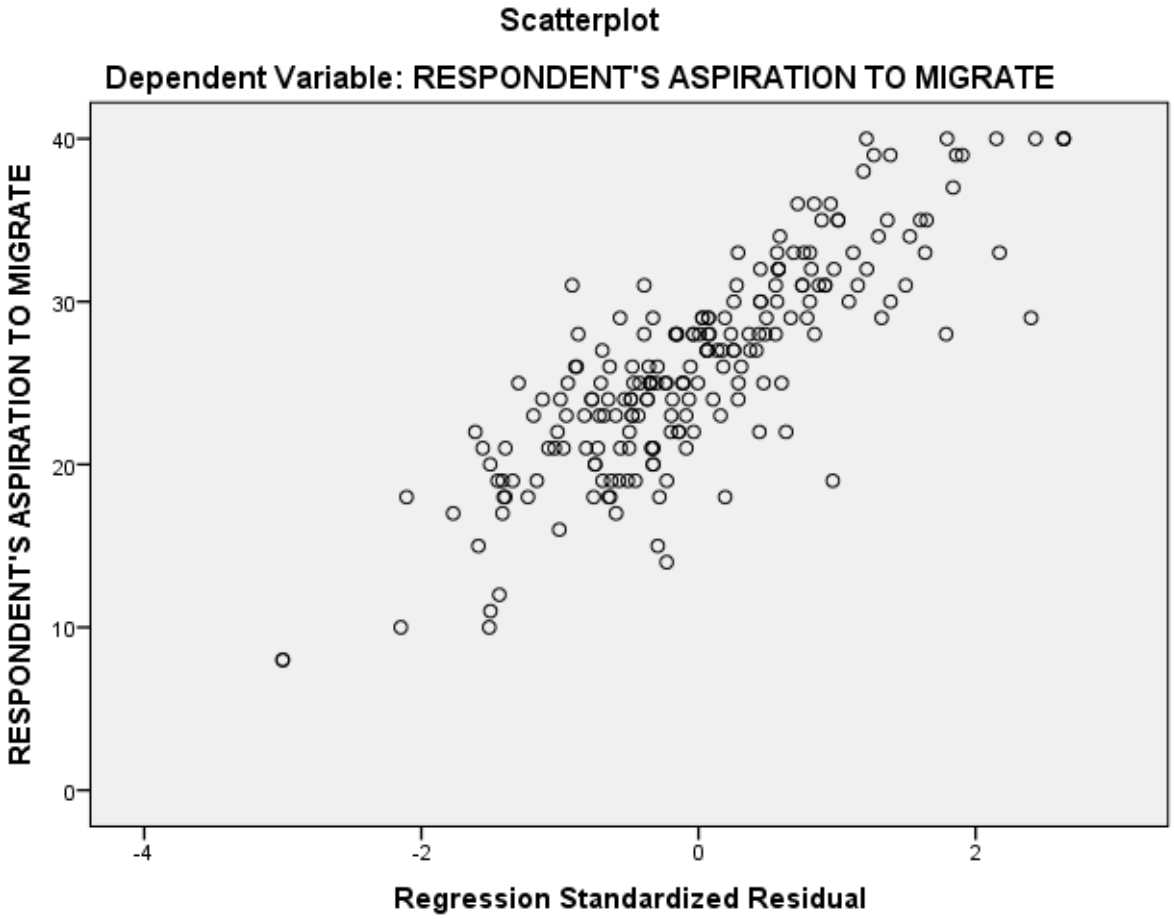
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	13.71	35.98	26.05	3.516	211
Residual	-16.378	14.387	.000	5.420	211
Std. Predicted Value	-3.510	2.822	.000	1.000	211
Std. Residual	-3.000	2.636	.000	.993	211

a. Dependent Variable: RESPONDENT'S ASPIRATION TO MIGRATE


Histogram
Dependent Variable: RESPONDENT'S ASPIRATION TO MIGRATE
Mean = -1.48E-16
Std. Dev. = 0.993
N = 211
Frequency
40
30
20
10
0
-4
-2
0
2
Regression Standardized Residual


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: RESPONDENT'S ASPIRATION TO MIGRATE
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Partial Regression Plot
Dependent Variable: RESPONDENT'S ASPIRATION TO MIGRATE
RESPONDENT'S ASPIRATION TO MIGRATE
20
10
0
-10
-20
-20
-10
0
10
20
RESPONDENT'S VIEWS ON MIGRATION


Scatterplot
Dependent Variable: RESPONDENT'S ASPIRATION TO MIGRATE
RESPONDENT'S ASPIRATION TO MIGRATE
40
30
20
10
0
-4
-2
0
2
Regression Standardized Residual

CRONBACH'S ALPHA RELIABILITY TEST.

The Cronbach's Alpha Reliability Test was carried out on the Likert statements in sections C and D of the Sample questionnaire for the pilot survey (*Appendix 3*: Sample questionnaire) and sections E and F of the main survey questionnaire (*Appendix 4*: Questionnaire to ensure that the statements in those sections of the questionnaires were consistently and reliably assessing the parameters I set out to assess (Views on migration and Aspirations to migrate).

ASPIRATION TO MIGRATE

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.827	.826	8

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.153	2.722	3.870	1.148	1.422	.212	8

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
25.22	38.780	6.227	8

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Considered the idea	21.35	34.761	.357	.268	.829
Enquired about migration	21.57	31.193	.541	.363	.808
Have needed information	22.31	29.918	.586	.437	.802
Would love to move abroad someday	21.69	31.880	.442	.274	.821
Plan in place	22.48	30.556	.643	.464	.797
Not concerned about writng qualifying exams	22.20	30.618	.445	.412	.824
Not discouraged by length of time	22.50	27.236	.719	.621	.781
Not discouraged by the resources	22.44	27.233	.687	.562	.786

VIEWS ON MIGRATION

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.806	.809	7

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.643	3.259	4.093	.833	1.256	.096	7

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
25.50	21.349	4.621	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Better prospects	21.76	15.092	.665	.500	.757
Job abroad	22.07	17.315	.497	.294	.789
Better Job satisfaction	22.24	14.601	.567	.376	.779
Financially better off	21.87	16.190	.624	.455	.768
Experience of practicing abroad	21.41	16.171	.571	.351	.775
Better standing in community	22.11	16.138	.472	.270	.795
Better recognition	21.54	17.838	.425	.230	.799

Appendix 18: Demographics and characteristics of interview participants.

Participants	University of Ibadan	University of Benin
Students	6	4
House officers	2	2
Staff (academic & non-academic staff)	5	5
Family members (parents)	1	2
Total	14	10

All interview participants are anonymised with pseudonyms, and in most cases, participants were given more than one pseudonym in the reporting of the interviews as a way of minimising the chances of recognising or identifying individuals from the report.

Students

The ten students interviewed in this study were in their final year of study and were preparing for their final exams when the interviews were conducted. They came from different socio-economic backgrounds, were all single and were mostly residing in the students' hostels. The students included:

Jide, a 26-year old male; his family come from a large urban centre in the South-east of Nigeria. Jide has two brothers living in the US; one of them is a practicing medical doctor, while the other is a pharmacist.

Timothy (M), 27; his family come from rural farming community in the North-central Nigeria. He claimed not to have any family member abroad but has a few friends abroad and close colleagues who have been abroad.

Toni (M), 26-year old, from an urban background in the south-south region of Nigeria. His parents studied abroad and one of his elder brothers is a practicing pharmacist in the US.

Kemi, is a 27-year old female student who described herself as coming from a small town in the South-west of Nigeria. Her parents once lived abroad, and she has personally been abroad (UK) on an overseas clinical posting programme for students. She also has an elder sister presently working in the UK.

Kome (M), 24; family presently live in a large town in the South-south region of Nigeria. Although he has friends and knows neighbours who have been abroad, neither he nor his parents have been abroad.

Kunle (M), a 29-year old student. His family live in a large city in the South-west of Nigeria, and regularly travel abroad. He was last in the UK for his overseas clinical posting a few months before the interview.

Gloria (F), a 24-year old student. She is from a family of five. She has been abroad (France, US, & UK) but only for holidays. Hern family is from a city in the South-south of Nigeria

Itohan, a 26-year old female student whose family live in a small town in the South-west of Nigeria. She has never been abroad but has friends who have a positive family migration history.

Kachi (M), 27; his family is from the South-east of Nigeria. His parents trained abroad, and he has an elder brother and cousins living in the US.

Mary (F), a 26-year old student whose family come from an urban centre in the North-central region of Nigeria. One of her parents studied abroad, and she has been abroad on holiday.

House Officers

The house officers were recent graduates from the medical schools on a one-year internship at their respective teaching hospitals. They included:

Dr Owumi (M), a 26-year old doctor who started his internship a few months before the interview. Prior to his graduation and internship, he participated in an overseas clinical posting for students in the UK. He comes from a large urban centre in the South-west of Nigeria.

Kehinde (M), a 27-year old doctor from the South-south of Nigeria. He has never been abroad but have a positive family migration history. He also claimed to have close friends and colleagues in the UK and US.

Martha, 28-year old female doctor who started her internship few weeks before the interview. She described her background as rural. She has been abroad once for holiday and at least one of her parents (father) studied abroad.

Tolu (F), a 28-year old house officer, was recently abroad for her overseas clinical posting for students. She described her family background as urban.

Staff

The staff interviewed as part of this study included a senior administrative staff, the chairperson of the alumni body of one of the universities, academic staff who were also clinical consultants in various fields in clinical medicine (*Professor Akatubi (M)*, a consultant in dermatology; *Professor Dike (F)*, a consultant in renal medicine; *Dr Adebanbo (M)*, a 52-year old urologist; and *Dr Tobi (M)*, consultant in community medicine), and clinical registrars (*Dr Ade (M)*, a 41-year old senior registrar in anaesthesiology; *Dr Chinedun (M)*, a senior registrar in Neurosurgery; *Dr Chinwe (F)*, a registrar in general surgery; and *Dr Esosa (F)*, a 30-year old resident doctor in paediatrics).

Families

Three family members (parents) of selected students from the two schools were interviewed. The first was a Professor in one of the social sciences discipline. He has three sons, two of which were already in the US. His third and last son was in his final year of medical school study and was involved in this study.

A second parent was a Chemical pathologist who once worked (now retired) in one of the teaching hospitals affiliated to one of the medical schools in this study. He had his post-graduate training in the US and worked there for a couple of years before retiring and returning to Nigeria. The wife of this second participant make up the third parent interviewed in this study. They have a son who still lives in the US, while their other son in his final year of medical school in Nigeria study was part of this study.